

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID:	nAPP2208846424
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: jim.ralej@div.com	Incident # (assigned by OCD): nAPP2208846424
Contact mailing address: 5315 Buena Vista Dr, Carlsbad, NM, 88220	

Location of Release Source

Latitude 32.0072937 Longitude -103.9659729  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Pecos Federal #001Y	Site Type: Oil Production Site
Date Release Discovered: 3/21/2022	API# (if applicable): 30-015-24875

Unit Letter	Section	Township	Range	County
P	27	26S	29E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: )

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls): 8	Volume Recovered (bbls): 3
<input type="checkbox"/> Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:  
Tank overflow allowed the release of approx. 8 bbls of oil. Approx 6 bbls was released to secondary containment of which 3 bbls was recovered. Winds allowed approx. 2 bbls to impact soils offsite.

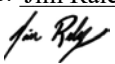
$$bbl\ estimate = \frac{saturated\ soil\ volume(ft^3)}{4.21(bbl\ equivalent)} * estimated\ soil\ porosity\ (\%) + recovered\ fluids\ (bbls)$$

Incident ID:	nAPP2208846424
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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?          
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?          	

## Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:          	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Jim Raley</u>	Title: <u>Environmental Professional</u>
Signature: <u></u>	Date: <u>12/29/2022</u>
email: <u>jim.raley@dvn.com</u>	Telephone: <u>575-689-7597</u>
<b><u>OCD Only</u></b>  Received by: _____ Date: _____	



Incident ID:	nAPP2208846424
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51-100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID:	nAPP2208846424
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Printed Name: Jim Raley Title: Environmental Professional

Signature:  Date: 12/29/2022

email: jim.raley@dvni.com Telephone: 575-689-7597

**OCD Only**

Received by: Jocelyn Harimon Date: 12/29/2022

Incident ID:	nAPP2208846424
District RP	
Facility ID	
Application ID	

## Remediation Plan


**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.


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Printed Name: Jim Raley Title: Environmental Professional  
Signature:  Date: 12/29/2022  
email: jim.raley@dvn.com Telephone: 575-689-7597

**OCD Only**

Received by: Jocelyn Harimon Date: 12/29/2022

☐ Approved ☒ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature:  Date: 01/24/2023

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
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State of New Mexico  
Energy Minerals and Natural  
Resources Department  
  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID	NAB1431650115
District RP	2RP-2595
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party WPX Energy, Inc.	OGRID 246289
Contact Name Jim Raley	Contact Telephone (575)689-7597
Contact email jim.raley@dvn.com	Incident # (assigned by OCD) NAB1431650115
Contact mailing address 5315 Buena Vista Dr., Carlsbad, NM 88220	

Location of Release Source

Latitude 32.0072945706848 Longitude -103.965986188431  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Pecos Federal 001Y	Site Type Oil and Gas Well
Date Release Discovered 11/10/2014	API# (if applicable) 30-015-24875

Unit Letter	Section	Township	Range	County
P	27	26S	29E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 25	Volume Recovered (bbls) 25
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

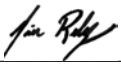
Transfer pump suction line from tank battery developed a leak and released 25 bbls of produced water to lined secondary containment. A vacuum truck was used to recover free liquids. The suction line, formerly rubber hose construction, was replaced with steel line. All fluids remained in lined secondary containment and was able to be recovered with vacuum truck.

Incident ID	NAB1431650115
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Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

## Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

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Printed Name: <u>Jim Raley</u>	Title: <u>Environmental Professional</u>
Signature: <u></u>	Date: <u>12/29/2022</u>
email: <u>jim.raley@dvn.com</u>	Telephone: <u>575-686-7597</u>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Incident ID	NAB1431650115
District RP	2RP-2595
Facility ID	
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## Site Assessment/Characterization

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Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

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- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody


If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

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Incident ID	NAB1431650115
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Printed Name: Jim Raley Title: Environmental Professional  
Signature:  Date: 12/29/2022  
email: jim.raley@dvn.com Telephone: 575-686-7597

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NAB1431650115
District RP	2RP-2595
Facility ID	
Application ID	

## Remediation Plan

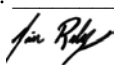
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- ☒ Estimated volume of material to be remediated
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- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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Printed Name: Jim Raley Title: Environmental Professional  
Signature:  Date: 12/29/2022  
email: jim.raley@dm.com Telephone: 575-686-7597

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_





## DEFERRAL REQUEST REPORT

Site Location:

**Pecos Federal #001Y  
Eddy County, New Mexico  
Incident Numbers  
nAPP2208846424 & nAB1431650115**

May 5, 2023

Ensolum Project No. 03A1987014

Prepared for:

**WPX Energy Permian, LLC  
5315 Buena Vista Drive  
Carlsbad, New Mexico 88220  
Attention: Jim Raley**

Prepared by:

Ashley N. Giovengo  
Senior Engineer

Daniel R. Moir, PG  
Senior Managing Geologist

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1.3 Karst Potential ..... 2

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- Figure 1: Site Location Map
- Figure 2: Delineation Soil Sample Locations
- Figure 3: Confirmation Sampling Map

TABLES

- Table 1: Delineation Soil Samples
- Table 2: Excavation Floor Soil Samples
- Table 3: Excavation Sidewall Soil Samples

APPENDICES

- Appendix A: Closure Criteria Supporting Documents
- Appendix B: Laboratory Analytical Reports & Chain-of-Custody Documentation
- Appendix C: Photographic Log
- Appendix D: C-141 Forms
- Appendix E: Email Correspondence

## 1.0 INTRODUCTION

Ensolum, LLC (Ensolum) has prepared this *Deferral Request Report* (DRR) on behalf of WPX Energy Permian, LLC, hereafter referred to as WPX, regarding produced water and crude oil releases at the Pecos Federal #001Y (Site), located in Unit P, Section 27, Township 26 South, Range 29 East, in Eddy County, New Mexico (**Figure 1**). Global Positioning System (GPS) coordinates for the Site are as follows: North 32.0072937 and West -103.9659729. Surface owner of the Site is Federal Land managed by the Bureau of Land Management (BLM).

This DRR addresses remedial actions associated with Incident Numbers nAPP2208846424 and nAB1431650115. Impacted soil has been excavated to the maximum extent practicable (MEP) in accordance with the approved *Remediation Work Plan Addendum* (RWPA) and a 20-mil liner has been installed to act as a barrier against chloride migration. Remaining impacts located beneath the earthen containment could not be removed without the deconstruction of production equipment or without compromising the safety of personnel or the integrity of said production equipment. The remaining soils do not appear to pose imminent risk to human health, safety, or the environment. As such, WPX respectfully requests deferral of those soils until there is major reconstruction of production equipment or the production well is abandoned and the facilities are removed.

### 1.1 Background

On March 21, 2022, a tank overflow caused the release of approximately 8 barrels (bbls) of crude oil at the Site; 6 bbls of oil was released inside the earthen containment and winds carried the remaining 2 bbls off-pad. WPX reported the release to the New Mexico Oil Conservation Division (NMOCD) and filed a Corrective Action Form C-141 (Form C-141) on March 29, 2022. Subsequently, NMOCD assigned Incident Number nAPP2208846424 to the release.

The release that occurred on March 21, 2022, overlapped a historical produced water spill that occurred on November 10, 2014. The suction line on a transfer pump developed a leak, which resulted in the release of 25 bbls of produced water to earthen containment. The Incident Number associated with the historical release is nAB1431650115.

On December 29, 2022, Ensolum submitted an addendum to the existing *Remediation Work Plan* summarizing additional delineation sampling at the Site; the approved RWPA can be viewed on the NMOCD web portal. The addendum identified two areas of concern; one area on the north side of the earthen containment and one area on the west side of the containment. The RWPA proposed excavation of the two areas of concern and proposed the installation of a 20-mil liner. The RWPA was approved by NMOCD on September 20, 2022, with one condition:

*"Remediation Plan Approved with Conditions. Please address chloride concentrations in PH-13 at 2' (1,460 mg/kg)."*

### 1.2 Surface and Ground Water

The United States Geological Survey (USGS) indicates the nearest depth to groundwater measurement is 53.46 feet below ground surface (bgs) and is located approximately ½-mile northeast of the Site as shown in **Figure 1**. The Site is greater than 300 feet from any riverine or wetland and greater than 1,000 feet to a freshwater well or spring; the Site is not located within a 100-year floodplain. The water well log for relevant wells utilized to estimate depth to water beneath the Site is included in **Appendix A**.

### 1.3 Karst Potential

According to data from the BLM, this Site is located within a high karst potential area as shown in **Figure 1**. Indicators of surface and/or subsurface karst features have not been observed at or around the Site.

### 1.4 Site Characterization

The Site was characterized to assess the applicability of Table I, Closure Criteria for Soils Impacted by a Release per Title 19, Chapter 15, Part 29 (19.15.29) of the New Mexico Administrative Code (NMAC). Results from the characterization desktop review are presented on page 3 of the C-141 Form titled Site Assessment/Characterization. Potential Site receptors are identified on **Figure 1**. Based on the results of the Site Characterization, the applicable Closure Criteria were applied:

- Benzene: 10 milligrams per kilogram (mg/kg)
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX): 50 mg/kg
- Total Petroleum Hydrocarbon (TPH): 100 mg/kg
- Chloride: 600 mg/kg

## 2.0 REMEDIATION ACTIVITIES

Beginning on April 17, 2022, Kelly Oilfield Services scraped the impacted area on the north side of the containment and removed accessible contamination from inside the tank battery containment. On March 24, 2023, the area of concern in sample location PH13, depicted on **Figure 2**, was excavated to a depth of 7 feet bgs per the approved RWPA. Following the completion of excavation activities in the vicinity of soil sample location PH13, Ensolum personnel collected five composite confirmation samples from the floor of the excavation (FS01 through FS05) at depths ranging from 4 feet to 7 feet bgs. Five composite side walls samples (SW05 through SW09) were collected at depths ranging from the ground surface to 7 feet bgs. All soil samples were properly packaged, preserved, and transported to Envirotech, Inc. following proper chain-of-custody procedures and were analyzed for the following constituents of concern (COCs): TPH following United States Environmental Protection Agency (EPA) Method 8015D, BTEX following EPA Method 8021B, and chloride following EPA Method 300.0. Confirmation sample locations are identified on **Figure 3**.

Laboratory analytical results indicated all COC concentrations for all confirmation samples were in compliance with the Closure Criteria with the exception of sidewall soil sample SW09, which is directly adjacent to the tank battery containment and represents the northern edge of the requested deferral area. Laboratory analytical results are presented in **Table 1** and laboratory analytical reports are included in **Appendix B**.

In order to address the area of concern on the west side of the containment as directed by soil sample locations PH11 and PH18, an area measuring approximately 2,230 square feet was excavated to a depth of 4 feet bgs and a 20-mil liner was installed over the entirety of the area (see **Photographic Log** in **Appendix C**). The area that extended beyond the proposed liner extent (PH15 and PH16) was excavated to a depth of 4 feet bgs and four composite confirmation samples (FS06 through FS09) were collected from that area (**Figure 3**). Sidewall soil samples SW01 through SW04 and SW10 were collected at depths ranging from the ground surface to 4 feet bgs (**Figure 3**).

Laboratory analytical results indicated TPH and chloride concentrations for all four confirmation floor soil samples exceeded the Closure Criteria for the Site at 4 feet bgs as well as sidewall sample SW10, collected between the ground surface and 4 feet bgs. Confirmation sidewall soil sample SW10 is located directly adjacent to the tank battery containment and reflects the western edge of deferred soil.

Ensolum personnel returned to the Site on April 11, 2023, and an area measuring approximately 670 square feet was excavated to a depth of 6 feet bgs. Floor soil samples FS06 through FS09 were recollected; FS09 exceeded the Closure Criteria for chloride at 6 feet bgs. Ensolum personnel returned to the Site on April 14, 2023, to continue excavation and to resample FS09. Floor sample FS09 met the strictest Closure Criteria for all COCs at 9.5 feet bgs. Due to the extended excavation floor, confirmation sidewall soil samples SW11 and SW12 were collected at depths ranging from the ground surface to 6 feet bgs. Laboratory analytical results indicated COC concentrations in soil from the two sidewall samples were compliant with the Closure Criteria.

Upon completion of the excavation, the 20-mil liner was extended to cover sample locations FS06-FS09. The spill areas were backfilled and approximately 1,400 cubic yards of contaminated soil was hauled to an approved disposal facility.

Laboratory analysis results are presented in **Table 2** and **Table 3** and laboratory analytical reports are included in **Appendix B**. The final C-141s are included in **Appendix D** and NMOCD correspondence emails are provided in **Appendix E**.

### 3.0 DEFERRAL REQUEST

On behalf of WPX, Ensolum requests to defer approximately 870 cubic yards of contaminated soil located beneath the tank battery containment. Deferral is requested for the area indicated on **Figure 3** until there is major reconstruction of the production equipment within the secondary containment or the production well is abandoned, and reclamation activities commence based on the logic below.

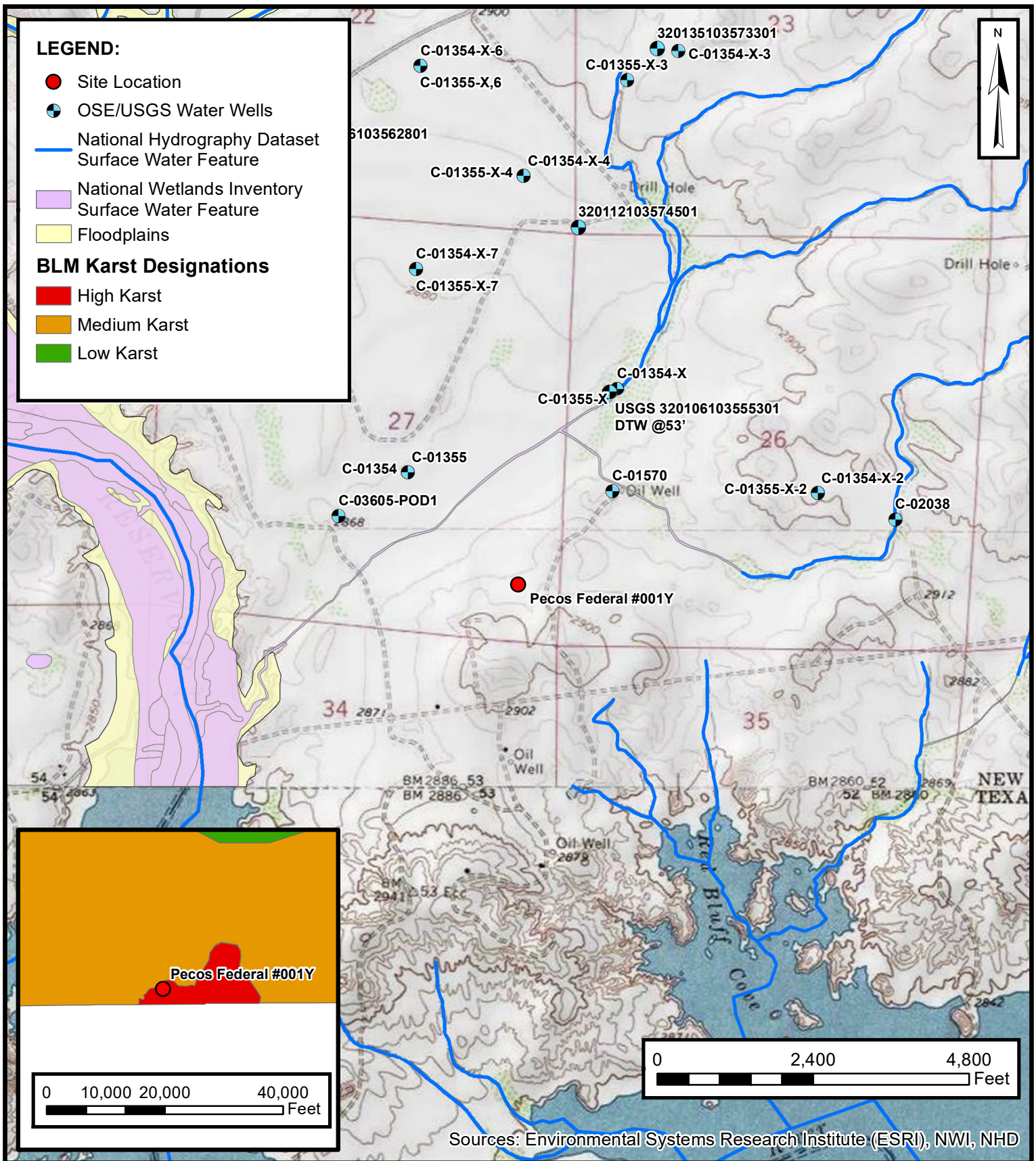
- Due to the location of impacted soil beneath the earthen tank battery containment, it is not practical to remove for remediation. The battery is in production and would require shutting in for an extended period of time to remove impacted soil. Accessible material was excavated to the MEP.
- The release extent associated with Incident Number nAPP2208846424 has been horizontally and vertically delineated. Two additional areas of concern, both of which were vertically delineated, were remediated in accordance with the approved RWPA.
- Impacted soil in the vicinity of pothole soil sample PH13 at 2 feet bgs was addressed and contaminated soil was removed per the approved RWPA.
- A 20-mil liner was installed over the entirety of the excavation on the west side of the tank containment to prevent further chloride migration.
- All confirmation samples were below the Closure Criteria for the Site with the exception of soil in the vicinity of sidewall soil samples SW09 and SW10, which are located within the area of requested deferral (**Figure 3**).



Figures

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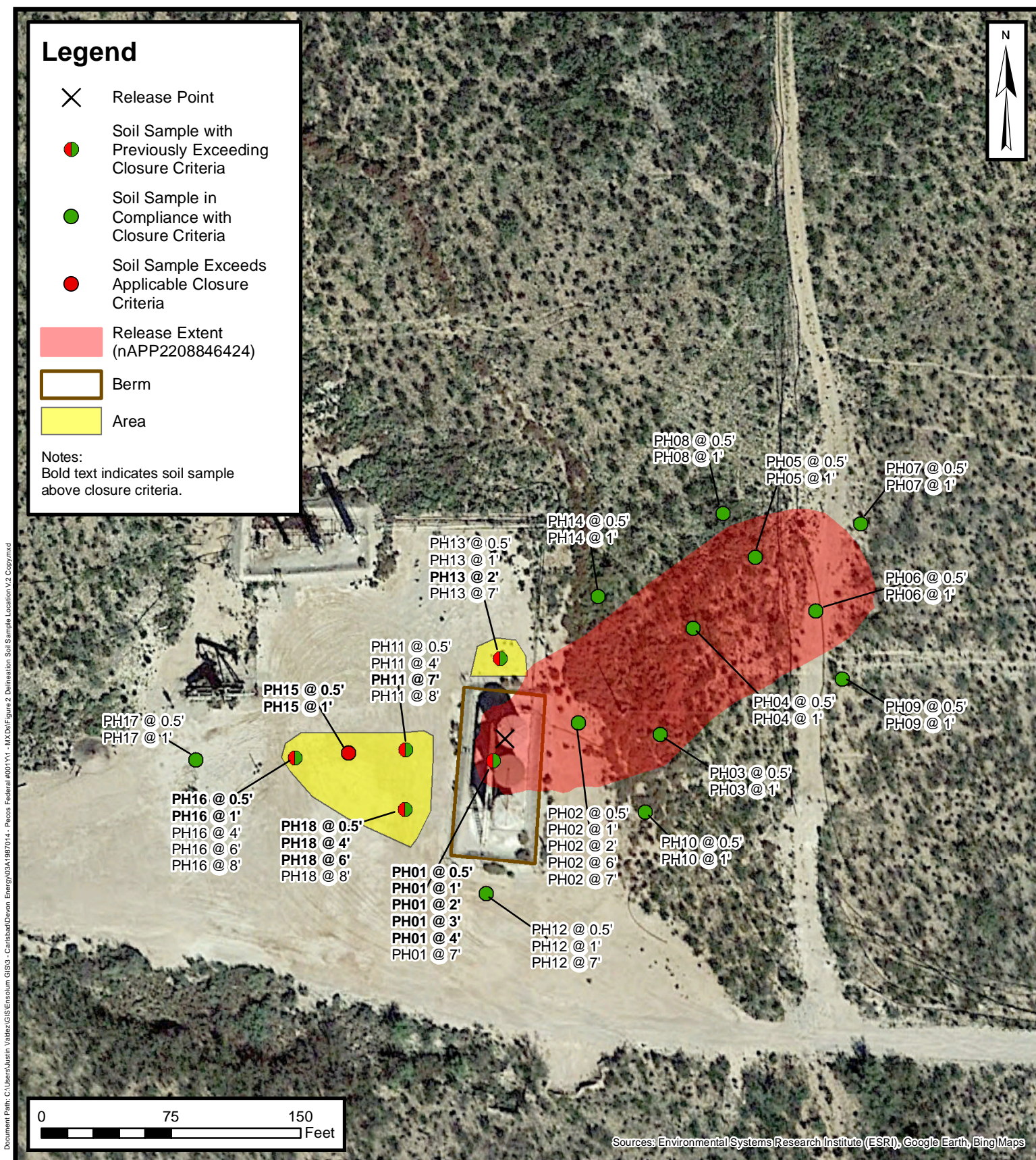


## Site Location Map

Pecos Federal #001Y  
WPX Energy Permian, LLC  
32.0142500, -103.9616667  
Eddy County, NM

FIGURE  
**#1**



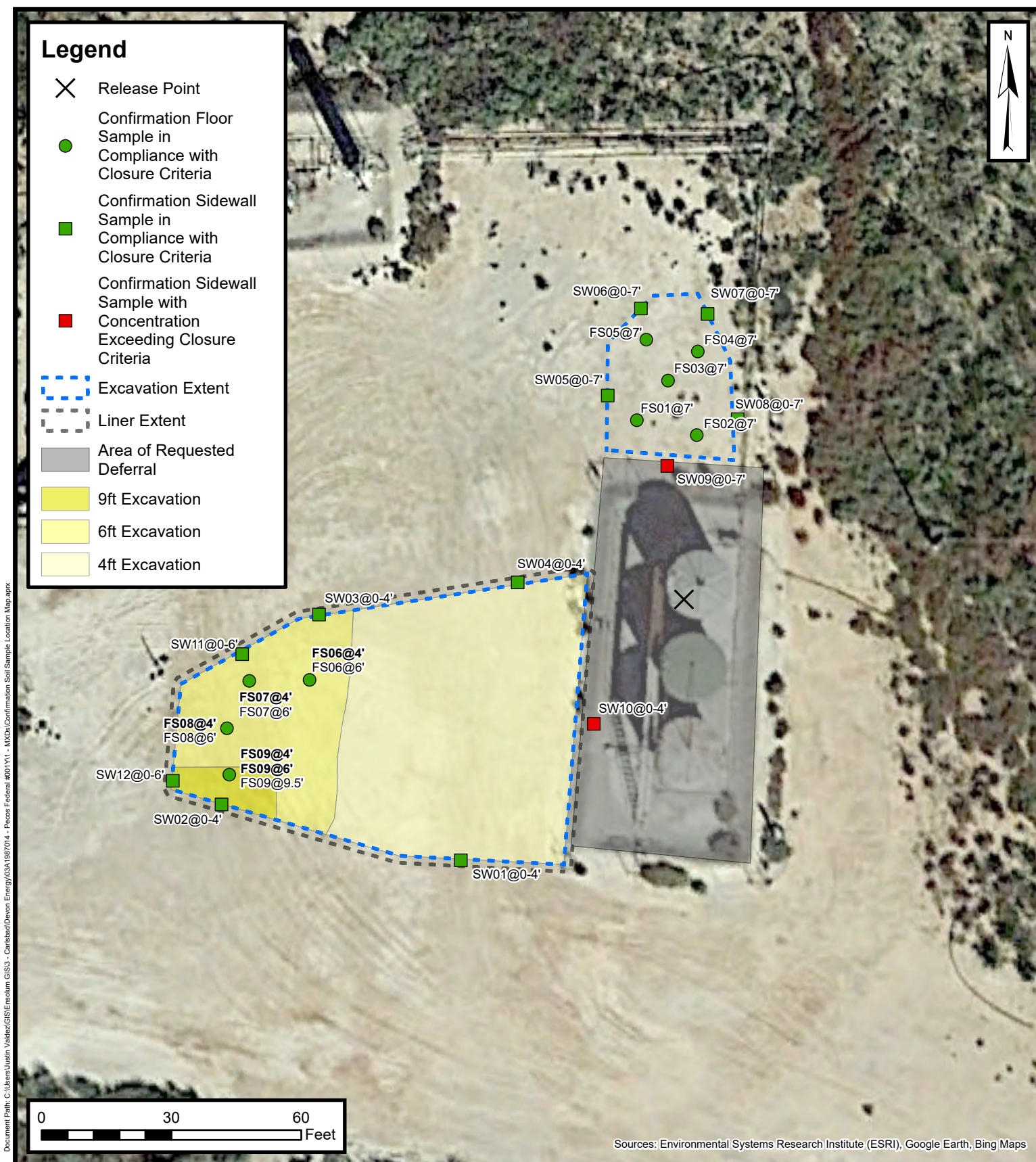


## Delineation Soil Sample Locations

Percos Federal #001Y  
WPX Energy Permian, LLC  
Unit P, Section 27, Township 26S, Range 29E  
Eddy County, New Mexico

FIGURE  
**2**





## Confirmation Sampling Map

Pecos Federal #001Y  
WPX Energy Permian, LLC  
Unit P, Section 27, Township 26S, Range 29E  
Eddy County, New Mexico

FIGURE  
3



Tables



<b>TABLE 1</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> WPX Energy Permian, LLC - Pecos Federal #001Y Eddy County, New Mexico Ensolum Project No. 03A1987014									
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Delineation Soil Samples</b>									
PH01	04/18/2022	0.5	<0.00200	<0.00399	<49.9	<b>763</b>	<b>222</b>	<b>985</b>	361
PH01	04/18/2022	1	<0.00199	<0.00398	<b>51.7</b>	<b>1,470</b>	<b>241</b>	<b>1,760</b>	288
PH01	04/18/2022	2	<0.00200	<0.00399	<50.0	<b>786</b>	<b>221</b>	<b>1,010</b>	258
PH01	04/18/2022	3	<0.00199	<0.00398	<50.0	<b>2,990</b>	<b>554</b>	<b>3,540</b>	<b>779</b>
PH01	05/18/2022	4	<0.00201	<0.00402	<49.9	<b>230</b>	<49.9	<b>230</b>	233
PH01	05/18/2022	7	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	116
PH02	04/18/2022	0.5	<0.00200	<0.00400	<49.9	<49.9	<49.9	<49.9	186
PH02	04/18/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	156
PH02	04/18/2022	2	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	116
PH02	05/18/2022	6	<0.00198	<0.00396	<49.9	<49.9	<49.9	<49.9	594
PH02	05/18/2022	7	<0.00198	<0.00397	<49.8	<49.8	<49.8	<49.8	534
PH03	04/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	10.6
PH03	04/18/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	6.41
PH04	04/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	<4.97
PH04	04/18/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<4.99
PH05	04/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	5.60

**Notes:**

bgs: below ground surface

mg/kg: milligrams per kilogram

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release



<b>TABLE 1 CONT'D</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> <b>WPX Energy Permian, LLC - Pecos Federal #001Y</b> <b>Eddy County, New Mexico</b> <b>Ensolum Project No. 03A1987014</b>									
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	100	600
PH05	04/18/2022	1	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	15.5
PH06	04/18/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	5.36
PH06	04/18/2022	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	7.50
PH07	04/18/2022	0.5	<0.00200	<0.00401	<49.9	<49.9	<49.9	<49.9	<4.95
PH07	04/18/2022	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	<5.04
PH08	04/18/2022	0.5	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	<5.00
PH08	04/18/2022	1	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	10.0
PH09	04/18/2022	0.5	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<4.97
PH09	04/18/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	6.71
PH10	04/18/2022	0.5	<0.00200	<0.00400	<50.0	<50.0	<50.0	<50.0	21.2
PH10	04/18/2022	1	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	112
PH11	05/18/2022	0.5	<0.00200	<0.00200	<50.0	70.6	<50.0	70.6	537
PH11	11/10/2022	4	<0.00200	<0.00399	<50.0	<50.0	<50.0	<50.0	490
PH11	05/18/2022	7	<0.00199	<0.00199	<49.9	<49.9	<49.9	<49.9	<b>4,740</b>
PH11	11/10/2022	8	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	204
PH12	05/18/2022	0.5	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	334

**Notes:**

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BTEX: Benzene, Toluene, Ethylbenzene, and Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release





<b>TABLE 1 CONT'D</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> <b>WPX Energy Permian, LLC - Pecos Federal #001Y</b> <b>Eddy County, New Mexico</b> <b>Ensolum Project No. 03A1987014</b>									
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
NMOCD Table I Closure Criteria (NMAC 19.15.29)			10	50	NE	NE	NE	100	600
PH12	05/18/2022	1	<0.00198	<0.00397	<49.9	<49.9	<49.9	<49.9	382
PH12	05/18/2022	7	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	599
PH13	04/18/2022	0.5	<0.00198	<0.00396	<50.0	<50.0	<50.0	<50.0	279
PH13	04/18/2022	1	<0.00200	<0.00401	<50.0	<50.0	<50.0	<50.0	313
PH13	05/18/2022	2	<0.00202	<0.00403	<49.9	<49.9	<49.9	<49.9	<b>1,460</b>
PH13	05/18/2022	7	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	456
PH14	04/18/2022	0.5	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	93.3
PH14	04/18/2022	1	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	248
PH15	05/18/2022	0.5	<0.00200	<0.00399	<50.0	<50.0	<b>67.9</b>	<b>67.9</b>	<b>8,780</b>
PH15	05/18/2022	1	<0.00198	<0.00396	<b>147</b>	<49.9	<49.9	<b>147</b>	<b>1,570</b>
PH16	05/18/2022	0.5	<0.00198	<0.00397	<b>144</b>	<50.0	<50.0	<b>144</b>	<b>7,560</b>
PH16	05/18/2022	1	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	<b>673</b>
PH16	11/10/2022	4	<0.00199	<0.00398	<50.0	<50.0	<50.0	<50.0	211
PH16	11/10/2022	6	<0.00200	<0.00399	<49.9	<49.9	<49.9	<49.9	424
PH16	11/10/2022	8	<0.00201	<0.00402	<50.0	<50.0	<50.0	<50.0	221
PH17	05/18/2022	0.5	<0.00200	<0.00399	73.7	<49.9	<49.9	73.7	38.2

**Notes:**

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GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release



<b>TABLE 1 CONT'D</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> WPX Energy Permian, LLC - Pecos Federal #001Y Eddy County, New Mexico Ensolum Project No. 03A1987014									
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
PH17	05/18/2022	1	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	37
PH18	11/10/2022	0.5	<0.00200	<0.00401	<50.0	<b>66.9</b>	<b>91</b>	<b>157.9</b>	<b>4,080</b>
PH18	11/10/2022	4	<0.00201	<0.00402	<49.9	<49.9	<49.9	<49.9	<b>629</b>
PH18	11/10/2022	6	<0.00199	<0.00398	<49.9	<49.9	<49.9	<49.9	600
PH18	11/10/2022	8	<0.00199	<0.00398	<49.8	<49.8	<49.8	<49.8	365

**Notes:**

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GRO: Gasoline Range Organics

DRO: Diesel Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release



<b>TABLE 2</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> WPX Energy Permian, LLC - Pecos Federal #001Y Eddy County, New Mexico Ensolum Project No. 03A1987014									
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Excavation Floor Soil Samples</b>									
FS01	03/24/2023	7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	270
FS02	03/24/2023	7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	331
FS03	03/24/2023	7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	296
FS04	03/24/2023	7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	278
FS05	03/24/2023	7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	302
FS06	03/27/2023	4	<0.0250	<0.0500	<20.0	<b>428</b>	<50.0	<b>428</b>	<b>834</b>
FS06	04/11/2023	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	375
FS07	03/27/2023	4	<0.0250	<0.0500	<20.0	<b>307</b>	<50.0	<b>307</b>	<b>877</b>
FS07	04/11/2023	6	<0.0250	<0.0500	<20.0	40.0	<50.0	40.0	486
FS08	03/27/2023	4	<0.0250	<0.0500	<20.0	<b>180.0</b>	<50.0	<b>180</b>	<b>656</b>
FS08	04/11/2023	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	411
FS09	03/27/2023	4	<0.0250	<0.0500	<20.0	<b>250</b>	<50.0	<b>250</b>	<b>779</b>
FS09	04/11/2023	6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	<b>631</b>
FS09	04/14/2023	9.5	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	306

**Notes:**

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GRO: Gasoline Range Organics

DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release



<b>TABLE 3</b> <b>SOIL SAMPLE ANALYTICAL RESULTS</b> WPX Energy Permian, LLC - Pecos Federal #001Y Eddy County, New Mexico Ensolum Project No. 03A1987014									
Sample Designation	Date	Depth (feet bgs)	Benzene (mg/kg)	Total BTEX (mg/kg)	TPH GRO (mg/kg)	TPH DRO (mg/kg)	TPH ORO (mg/kg)	Total TPH (mg/kg)	Chloride (mg/kg)
<b>NMOCD Table I Closure Criteria (NMAC 19.15.29)</b>			<b>10</b>	<b>50</b>	<b>NE</b>	<b>NE</b>	<b>NE</b>	<b>100</b>	<b>600</b>
<b>Excavation Sidewall Soil Samples</b>									
SW01	03/27/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	142
SW02	03/27/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	359
SW03	03/27/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	332
SW04	03/27/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	369
SW05	03/27/2023	0-7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	332
SW06	03/27/2023	0-7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	378
SW07	03/27/2023	0-7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	353
SW08	03/27/2023	0-7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	360
SW09	03/27/2023	0-7	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	<b>3,190</b>
SW10	03/27/2023	0-4	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	<b>3,150</b>
SW11	04/11/2023	0-6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	525
SW12	04/11/2023	0-6	<0.0250	<0.0500	<20.0	<25.0	<50.0	<50.0	400

**Notes:**

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DRO: Diesel Range Organics

ORO: Oil Range Organics

TPH: Total Petroleum Hydrocarbon

Concentrations in **bold** exceed the NMOCD Table I Closure Criteria and/or Reclamation Standard for Soils Impacted by a Release





## APPENDIX A

### Closure Criteria Supporting Documents

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National Water Information System: Web Interface

USGS Water Resources

Data Category:  
Groundwater

Geographic Area:  
United States

GO

Click to hideNews Bulletins

- Explore the NEW [USGS National Water Dashboard](#) interactive map to access real-time water data from over 13,500 stations nationwide.
- [Full News](#)

Groundwater levels for the Nation

Important: [Next Generation Monitoring Location Page](#)

Search Results -- 1 sites found

Agency code = usgs  
site\_no list =

- 320106103555301

Minimum number of levels = 1  
[Save file of selected sites](#) to local disk for future upload

USGS 320106103555301 26S.29E.26.13143

Eddy County, New Mexico  
Latitude 32°00'51.3", Longitude 103°57'42.0" NAD83  
Land-surface elevation 2,883.00 feet above NGVD29  
The depth of the well is 140 feet below land surface.  
This well is completed in the Other aquifers (N9999OTHER) national aquifer.  
This well is completed in the Rustler Formation (312RSLR) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
1983-01-26			D 62610		2828.70	NGVD29	1	Z		
1983-01-26			D 62611		2830.22	NAVD88	1	Z		
1983-01-26			D 72019	54.30			1	Z		
1987-10-14			D 62610		2847.71	NGVD29	1	Z		
1987-10-14			D 62611		2849.23	NAVD88	1	Z		
1987-10-14			D 72019	35.29			1	Z		
1992-11-04			D 62610		2838.94	NGVD29	1	S		
1992-11-04			D 62611		2840.46	NAVD88	1	S		
1992-11-04			D 72019	44.06			1	S		
1998-01-28			D 62610		2829.99	NGVD29	1	S		
1998-01-28			D 62611		2831.51	NAVD88	1	S		
1998-01-28			D 72019	53.01			1	S		
2003-01-27			D 62610		2827.07	NGVD29	1	S		USGS
2003-01-27			D 62611		2828.59	NAVD88	1	S		USGS
2003-01-27			D 72019	55.93			1	S		USGS
2013-01-09	19:00 UTC		m 62610		2825.19	NGVD29	1	S		USGS

Date	Time	? Water-level date-time accuracy	? Parameter code	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Status	? Method of measurement	? Measuring agency	? Source measur
2013-01-09	19:00 UTC	m	62611		2826.71	NAVD88	1		S	USGS
2013-01-09	19:00 UTC	m	72019	57.81			1		S	USGS
2021-02-24	21:10 UTC	m	62610		2829.54	NGVD29	1		S	USGS
2021-02-24	21:10 UTC	m	62611		2831.06	NAVD88	1		S	USGS
2021-02-24	21:10 UTC	m	72019	53.46			1		S	USGS

Explanation		
Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level date-time accuracy	m	Date is accurate to the Minute
Parameter code	62610	Groundwater level above NGVD 1929, feet
Parameter code	62611	Groundwater level above NAVD 1988, feet
Parameter code	72019	Depth to water level, feet below land surface
Referenced vertical datum	NAVD88	North American Vertical Datum of 1988
Referenced vertical datum	NGVD29	National Geodetic Vertical Datum of 1929
Status	1	Static
Method of measurement	S	Steel-tape measurement.
Method of measurement	Z	Other.
Measuring agency		Not determined
Measuring agency	USGS	U.S. Geological Survey
Source of measurement		Not determined
Source of measurement	S	Measured by personnel of reporting agency.
Water-level approval status	A	Approved for publication -- Processing and review completed.

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0.32 0.26 nadww01



## APPENDIX B

# Laboratory Analytical Reports & Chain-of-Custody Documentation

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## Environment Testing America

### ANALYTICAL REPORT

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad, NM 88220  
Tel: (575)988-3199

Laboratory Job ID: 890-2204-2

Laboratory Sample Delivery Group: 03A198701

Client Project/Site: Pecos Fed 1Y

Revision: 1

#### For:

Ensolum  
705 W. Wadley  
Suite 210  
Midland, Texas 79701

Attn: Joseph Hernandez

Authorized for release by:

5/19/2022 1:48:12 PM

Jessica Kramer, Project Manager  
(432)704-5440

[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)

#### LINKS

Review your project  
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Laboratory Job ID: 890-2204-2  
SDG: 03A198701

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
⌘	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

**Job ID: 890-2205-1**

**Laboratory: Eurofins Carlsbad**

### Narrative

#### Job Narrative 890-2205-1

#### Receipt

The samples were received on 4/19/2022 1:33 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

#### GC VOA

Method 8021B: The laboratory control sample (LCS) associated with preparation batch 880-24099 and analytical batch 880-24304 was outside acceptance criteria. Re-extraction and/or re-analysis could not be performed; therefore, the data have been reported. The batch matrix spike/matrix spike duplicate (MS/MSD) was within acceptance limits and may be used to evaluate matrix performance.

Method 8021B: The matrix spike duplicate (MSD) recoveries for preparation batch 880-24483 and analytical batch 880-24523 were outside control limits. Non-homogeneity is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.



## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH04

Lab Sample ID: 890-2204-11

Date Collected: 04/18/22 11:05

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		04/29/22 09:06	04/29/22 19:01	1
Toluene	<0.00201	U	0.00201		mg/Kg		04/29/22 09:06	04/29/22 19:01	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		04/29/22 09:06	04/29/22 19:01	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		04/29/22 09:06	04/29/22 19:01	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		04/29/22 09:06	04/29/22 19:01	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		04/29/22 09:06	04/29/22 19:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	04/29/22 09:06	04/29/22 19:01	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/29/22 09:06	04/29/22 19:01	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 03:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 03:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 03:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	04/20/22 11:30	04/21/22 03:08	1
o-Terphenyl	98		70 - 130	04/20/22 11:30	04/21/22 03:08	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.99	U	4.99		mg/Kg			04/28/22 01:46	1

Client Sample ID: PH05

Lab Sample ID: 890-2204-12

Date Collected: 04/18/22 11:25

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 19:22	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 19:22	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 19:22	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/29/22 09:06	04/29/22 19:22	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 19:22	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/29/22 09:06	04/29/22 19:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130	04/29/22 09:06	04/29/22 19:22	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH05

Lab Sample ID: 890-2204-12

Date Collected: 04/18/22 11:25

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	92		70 - 130	04/29/22 09:06	04/29/22 19:22	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 03:28	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 03:28	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 03:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	93		70 - 130				04/20/22 11:30	04/21/22 03:28	1
o-Terphenyl	102		70 - 130				04/20/22 11:30	04/21/22 03:28	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.60		5.00		mg/Kg			04/28/22 01:52	1

Client Sample ID: PH05

Lab Sample ID: 890-2204-13

Date Collected: 04/18/22 11:30

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 19:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 19:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 19:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/29/22 09:06	04/29/22 19:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 19:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/29/22 09:06	04/29/22 19:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	04/29/22 09:06	04/29/22 19:42	1
1,4-Difluorobenzene (Surr)	98		70 - 130	04/29/22 09:06	04/29/22 19:42	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 10:45	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH05

Lab Sample ID: 890-2204-13

Date Collected: 04/18/22 11:30

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 03:49	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 03:49	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 03:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				04/20/22 11:30	04/21/22 03:49	1
o-Terphenyl	101		70 - 130				04/20/22 11:30	04/21/22 03:49	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	15.5		4.96		mg/Kg			04/28/22 01:58	1

Client Sample ID: PH06

Lab Sample ID: 890-2204-14

Date Collected: 04/18/22 11:45

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 20:03	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 20:03	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 20:03	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/29/22 09:06	04/29/22 20:03	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 20:03	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/29/22 09:06	04/29/22 20:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130				04/29/22 09:06	04/29/22 20:03	1
1,4-Difluorobenzene (Surr)	95		70 - 130				04/29/22 09:06	04/29/22 20:03	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 04:09	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 04:09	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 04:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				04/20/22 11:30	04/21/22 04:09	1
o-Terphenyl	93		70 - 130				04/20/22 11:30	04/21/22 04:09	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH06

Lab Sample ID: 890-2204-14

Date Collected: 04/18/22 11:45

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.36		5.00		mg/Kg			04/28/22 02:05	1

Client Sample ID: PH06

Lab Sample ID: 890-2204-15

Date Collected: 04/18/22 11:50

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 20:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 20:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 20:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/29/22 09:06	04/29/22 20:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 20:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/29/22 09:06	04/29/22 20:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	120		70 - 130				04/29/22 09:06	04/29/22 20:23	1
1,4-Difluorobenzene (Surr)	105		70 - 130				04/29/22 09:06	04/29/22 20:23	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 04:30	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 04:30	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 04:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				04/20/22 11:30	04/21/22 04:30	1
o-Terphenyl	100		70 - 130				04/20/22 11:30	04/21/22 04:30	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.50		4.99		mg/Kg			04/28/22 06:31	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH01

Lab Sample ID: 890-2205-1

Date Collected: 04/18/22 10:00

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 16:42	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 16:42	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 16:42	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/29/22 09:22	04/29/22 16:42	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 16:42	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/29/22 09:22	04/29/22 16:42	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		70 - 130	04/29/22 09:22	04/29/22 16:42	1
1,4-Difluorobenzene (Surr)	83		70 - 130	04/29/22 09:22	04/29/22 16:42	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	985		49.9		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 03:21	1
Diesel Range Organics (Over C10-C28)	763		49.9		mg/Kg		04/20/22 15:27	04/21/22 03:21	1
Oil Range Organics (Over C28-C36)	222		49.9		mg/Kg		04/20/22 15:27	04/21/22 03:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	136	S1+	70 - 130	04/20/22 15:27	04/21/22 03:21	1
o-Terphenyl	152	S1+	70 - 130	04/20/22 15:27	04/21/22 03:21	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	361		4.98		mg/Kg			04/28/22 06:50	1

Client Sample ID: PH01

Lab Sample ID: 890-2205-2

Date Collected: 04/18/22 10:05

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 17:02	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 17:02	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 17:02	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/29/22 09:22	04/29/22 17:02	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 17:02	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/29/22 09:22	04/29/22 17:02	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH01

Lab Sample ID: 890-2205-2

Date Collected: 04/18/22 10:05

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/29/22 09:22	04/29/22 17:02	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/29/22 09:22	04/29/22 17:02	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1760		50.0		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	51.7		50.0		mg/Kg		04/20/22 15:27	04/21/22 03:41	1
Diesel Range Organics (Over C10-C28)	1470		50.0		mg/Kg		04/20/22 15:27	04/21/22 03:41	1
Oil Range Organics (Over C28-C36)	241		50.0		mg/Kg		04/20/22 15:27	04/21/22 03:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	144	S1+	70 - 130				04/20/22 15:27	04/21/22 03:41	1
o-Terphenyl	157	S1+	70 - 130				04/20/22 15:27	04/21/22 03:41	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	288		5.00		mg/Kg			04/28/22 06:56	1

Client Sample ID: PH01

Lab Sample ID: 890-2205-3

Date Collected: 04/18/22 10:10

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 2

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 17:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 17:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 17:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/29/22 09:22	04/29/22 17:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 17:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/29/22 09:22	04/29/22 17:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				04/29/22 09:22	04/29/22 17:23	1
1,4-Difluorobenzene (Surr)	95		70 - 130				04/29/22 09:22	04/29/22 17:23	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/28/22 11:55	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH01

Lab Sample ID: 890-2205-3

Date Collected: 04/18/22 10:10

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 2

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	1010		50.0		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 04:02	1
Diesel Range Organics (Over C10-C28)	786		50.0		mg/Kg		04/20/22 15:27	04/21/22 04:02	1
Oil Range Organics (Over C28-C36)	221		50.0		mg/Kg		04/20/22 15:27	04/21/22 04:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	134	S1+	70 - 130				04/20/22 15:27	04/21/22 04:02	1
o-Terphenyl	145	S1+	70 - 130				04/20/22 15:27	04/21/22 04:02	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	258		4.95		mg/Kg			04/28/22 07:02	1

Client Sample ID: PH01

Lab Sample ID: 890-2205-4

Date Collected: 04/18/22 15:45

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 3

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 17:43	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 17:43	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 17:43	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/29/22 09:22	04/29/22 17:43	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 17:43	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/29/22 09:22	04/29/22 17:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				04/29/22 09:22	04/29/22 17:43	1
1,4-Difluorobenzene (Surr)	102		70 - 130				04/29/22 09:22	04/29/22 17:43	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	3540		50.0		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 04:22	1
Diesel Range Organics (Over C10-C28)	2990		50.0		mg/Kg		04/20/22 15:27	04/21/22 04:22	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH01

Lab Sample ID: 890-2205-4

Date Collected: 04/18/22 15:45

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 3

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Oil Range Organics (Over C28-C36)	554		50.0		mg/Kg		04/20/22 15:27	04/21/22 04:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	143	S1+	70 - 130				04/20/22 15:27	04/21/22 04:22	1
o-Terphenyl	152	S1+	70 - 130				04/20/22 15:27	04/21/22 04:22	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	779		4.99		mg/Kg			04/28/22 07:09	1

Client Sample ID: PH02

Lab Sample ID: 890-2205-5

Date Collected: 04/18/22 10:20

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 18:04	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 18:04	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 18:04	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/29/22 09:22	04/29/22 18:04	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 18:04	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/29/22 09:22	04/29/22 18:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		70 - 130				04/29/22 09:22	04/29/22 18:04	1
1,4-Difluorobenzene (Surr)	97		70 - 130				04/29/22 09:22	04/29/22 18:04	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 00:18	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 00:18	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 00:18	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	125		70 - 130				04/20/22 15:27	04/21/22 00:18	1
o-Terphenyl	156	S1+	70 - 130				04/20/22 15:27	04/21/22 00:18	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	186		4.95		mg/Kg			04/28/22 07:28	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH02

Lab Sample ID: 890-2205-6

Date Collected: 04/18/22 10:25

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 18:25	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 18:25	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 18:25	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/29/22 09:22	04/29/22 18:25	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 18:25	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/29/22 09:22	04/29/22 18:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130	04/29/22 09:22	04/29/22 18:25	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/29/22 09:22	04/29/22 18:25	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 00:38	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 00:38	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 00:38	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130	04/20/22 15:27	04/21/22 00:38	1
o-Terphenyl	151	S1+	70 - 130	04/20/22 15:27	04/21/22 00:38	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	156		5.04		mg/Kg			04/28/22 07:34	1

Client Sample ID: PH02

Lab Sample ID: 890-2205-7

Date Collected: 04/18/22 10:30

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 2

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 18:45	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 18:45	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 18:45	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/29/22 09:22	04/29/22 18:45	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 18:45	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/29/22 09:22	04/29/22 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	04/29/22 09:22	04/29/22 18:45	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH02

Lab Sample ID: 890-2205-7

Date Collected: 04/18/22 10:30

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 2

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	93		70 - 130	04/29/22 09:22	04/29/22 18:45	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 00:58	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 00:58	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 00:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	123		70 - 130				04/20/22 15:27	04/21/22 00:58	1
o-Terphenyl	153	S1+	70 - 130				04/20/22 15:27	04/21/22 00:58	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	116		4.96		mg/Kg			04/28/22 07:40	1

Client Sample ID: PH03

Lab Sample ID: 890-2205-8

Date Collected: 04/18/22 10:45

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 19:06	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 19:06	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 19:06	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/29/22 09:22	04/29/22 19:06	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:22	04/29/22 19:06	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/29/22 09:22	04/29/22 19:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	04/29/22 09:22	04/29/22 19:06	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/29/22 09:22	04/29/22 19:06	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 09:38	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH03

Lab Sample ID: 890-2205-8

Date Collected: 04/18/22 10:45

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 01:19	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 01:19	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 01:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130				04/20/22 15:27	04/21/22 01:19	1
o-Terphenyl	150	S1+	70 - 130				04/20/22 15:27	04/21/22 01:19	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.6		5.01		mg/Kg			04/28/22 07:47	1

Client Sample ID: PH03

Lab Sample ID: 890-2205-9

Date Collected: 04/18/22 10:50

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 19:26	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 19:26	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 19:26	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/29/22 09:22	04/29/22 19:26	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 19:26	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/29/22 09:22	04/29/22 19:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		70 - 130				04/29/22 09:22	04/29/22 19:26	1
1,4-Difluorobenzene (Surr)	96		70 - 130				04/29/22 09:22	04/29/22 19:26	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 01:39	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 01:39	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	124		70 - 130				04/20/22 15:27	04/21/22 01:39	1
o-Terphenyl	154	S1+	70 - 130				04/20/22 15:27	04/21/22 01:39	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH03

Lab Sample ID: 890-2205-9

Date Collected: 04/18/22 10:50

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.41		4.97		mg/Kg			04/28/22 07:53	1

Client Sample ID: PH04

Lab Sample ID: 890-2205-10

Date Collected: 04/18/22 11:00

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *	0.00199		mg/Kg		04/23/22 12:31	04/27/22 19:41	1
Toluene	<0.00199	U *	0.00199		mg/Kg		04/23/22 12:31	04/27/22 19:41	1
Ethylbenzene	<0.00199	U *	0.00199		mg/Kg		04/23/22 12:31	04/27/22 19:41	1
m-Xylene & p-Xylene	<0.00398	U *	0.00398		mg/Kg		04/23/22 12:31	04/27/22 19:41	1
o-Xylene	<0.00199	U *	0.00199		mg/Kg		04/23/22 12:31	04/27/22 19:41	1
Xylenes, Total	<0.00398	U *	0.00398		mg/Kg		04/23/22 12:31	04/27/22 19:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130				04/23/22 12:31	04/27/22 19:41	1
1,4-Difluorobenzene (Surr)	104		70 - 130				04/23/22 12:31	04/27/22 19:41	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 02:00	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 02:00	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 02:00	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	121		70 - 130				04/20/22 15:27	04/21/22 02:00	1
o-Terphenyl	147	S1+	70 - 130				04/20/22 15:27	04/21/22 02:00	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			04/28/22 07:59	1

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## Surrogate Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-13981-A-14-D MS	Matrix Spike	95	102
880-13981-A-14-E MSD	Matrix Spike Duplicate	97	102
880-14236-A-41-D MS	Matrix Spike	103	97
880-14236-A-41-E MSD	Matrix Spike Duplicate	105	99
890-2204-11	PH04	107	94
890-2204-12	PH05	104	92
890-2204-13	PH05	109	98
890-2204-14	PH06	109	95
890-2204-15	PH06	120	105
890-2205-1	PH01	102	83
890-2205-2	PH01	106	97
890-2205-3	PH01	104	95
890-2205-4	PH01	106	102
890-2205-5	PH02	104	97
890-2205-6	PH02	106	93
890-2205-7	PH02	103	93
890-2205-8	PH03	107	97
890-2205-9	PH03	106	96
890-2205-10	PH04	99	104
LCS 880-24099/1-A	Lab Control Sample	100	103
LCS 880-24483/1-A	Lab Control Sample	100	98
LCSD 880-24099/2-A	Lab Control Sample Dup	95	104
LCSD 880-24483/2-A	Lab Control Sample Dup	104	100
MB 880-24099/5-A	Method Blank	97	102
MB 880-24483/5-A	Method Blank	100	93

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2203-A-1-C MS	Matrix Spike	122	132 S1+
890-2203-A-1-D MSD	Matrix Spike Duplicate	122	133 S1+
890-2204-11	PH04	85	98
890-2204-12	PH05	93	102
890-2204-13	PH05	88	101
890-2204-14	PH06	88	93
890-2204-15	PH06	88	100
890-2205-1	PH01	136 S1+	152 S1+
890-2205-2	PH01	144 S1+	157 S1+
890-2205-3	PH01	134 S1+	145 S1+
890-2205-4	PH01	143 S1+	152 S1+
890-2205-5	PH02	125	156 S1+
890-2205-6	PH02	122	151 S1+
890-2205-7	PH02	123	153 S1+

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Surrogate Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2205-8	PH03	124	150 S1+
890-2205-9	PH03	124	154 S1+
890-2205-10	PH04	121	147 S1+
LCS 880-23857/2-A	Lab Control Sample	120	131 S1+
LCSD 880-23857/3-A	Lab Control Sample Dup	145 S1+	161 S1+
MB 880-23857/1-A	Method Blank	116	146 S1+
<strong>Surrogate Legend</strong>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24099/5-A

Matrix: Solid

Analysis Batch: 24304

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24099

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/23/22 12:31	04/27/22 14:18	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/23/22 12:31	04/27/22 14:18	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/23/22 12:31	04/27/22 14:18	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/23/22 12:31	04/27/22 14:18	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/23/22 12:31	04/27/22 14:18	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/23/22 12:31	04/27/22 14:18	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	97		70 - 130	04/23/22 12:31	04/27/22 14:18	1
1,4-Difluorobenzene (Surr)	102		70 - 130	04/23/22 12:31	04/27/22 14:18	1

Lab Sample ID: LCS 880-24099/1-A

Matrix: Solid

Analysis Batch: 24304

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24099

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1350	*+	mg/Kg		135	70 - 130
Toluene	0.100	0.1526	*+	mg/Kg		153	70 - 130
Ethylbenzene	0.100	0.1429	*+	mg/Kg		143	70 - 130
m-Xylene & p-Xylene	0.200	0.2927	*+	mg/Kg		146	70 - 130
o-Xylene	0.100	0.1348	*+	mg/Kg		135	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	103		70 - 130

Lab Sample ID: LCSD 880-24099/2-A

Matrix: Solid

Analysis Batch: 24304

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24099

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.1185		mg/Kg		119	70 - 130	13	35
Toluene	0.100	0.1276		mg/Kg		128	70 - 130	18	35
Ethylbenzene	0.100	0.1177		mg/Kg		118	70 - 130	19	35
m-Xylene & p-Xylene	0.200	0.2405		mg/Kg		120	70 - 130	20	35
o-Xylene	0.100	0.1119		mg/Kg		112	70 - 130	19	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	104		70 - 130

Lab Sample ID: 880-13981-A-14-D MS

Matrix: Solid

Analysis Batch: 24304

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24099

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U *+	0.0996	0.08276		mg/Kg		83	70 - 130
Toluene	<0.00200	U *+	0.0996	0.09680		mg/Kg		96	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-13981-A-14-D MS

Matrix: Solid

Analysis Batch: 24304

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24099

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00200	U *	0.0996	0.1039		mg/Kg		103	70 - 130
m-Xylene & p-Xylene	<0.00399	U *	0.199	0.2056		mg/Kg		102	70 - 130
o-Xylene	<0.00200	U *	0.0996	0.1009		mg/Kg		99	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	95		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: 880-13981-A-14-E MSD

Matrix: Solid

Analysis Batch: 24304

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24099

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00200	U *	0.0994	0.08406		mg/Kg		85	70 - 130	2	35
Toluene	<0.00200	U *	0.0994	0.1018		mg/Kg		101	70 - 130	5	35
Ethylbenzene	<0.00200	U *	0.0994	0.1085		mg/Kg		108	70 - 130	4	35
m-Xylene & p-Xylene	<0.00399	U *	0.199	0.2148		mg/Kg		107	70 - 130	4	35
o-Xylene	<0.00200	U *	0.0994	0.1056		mg/Kg		104	70 - 130	4	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	97		70 - 130
1,4-Difluorobenzene (Surr)	102		70 - 130

Lab Sample ID: MB 880-24483/5-A

Matrix: Solid

Analysis Batch: 24523

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24483

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 16:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 16:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 16:00	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/29/22 09:22	04/29/22 16:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:22	04/29/22 16:00	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/29/22 09:22	04/29/22 16:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	04/29/22 09:22	04/29/22 16:00	1
1,4-Difluorobenzene (Surr)	93		70 - 130	04/29/22 09:22	04/29/22 16:00	1

Lab Sample ID: LCS 880-24483/1-A

Matrix: Solid

Analysis Batch: 24523

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24483

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08909		mg/Kg		89	70 - 130
Toluene	0.100	0.08931		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.09118		mg/Kg		91	70 - 130
m-Xylene & p-Xylene	0.200	0.1865		mg/Kg		93	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-24483/1-A

Matrix: Solid

Analysis Batch: 24523

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24483

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
o-Xylene	0.100	0.09369		mg/Kg		94	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-24483/2-A

Matrix: Solid

Analysis Batch: 24523

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24483

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.1038		mg/Kg		104	70 - 130	15	35
Toluene	0.100	0.1032		mg/Kg		103	70 - 130	14	35
Ethylbenzene	0.100	0.1069		mg/Kg		107	70 - 130	16	35
m-Xylene & p-Xylene	0.200	0.2176		mg/Kg		109	70 - 130	15	35
o-Xylene	0.100	0.1085		mg/Kg		109	70 - 130	15	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-14236-A-41-D MS

Matrix: Solid

Analysis Batch: 24523

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24483

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00202	U F1	0.0998	0.07164		mg/Kg		72	70 - 130
Toluene	<0.00202	U F1	0.0998	0.07241		mg/Kg		73	70 - 130
Ethylbenzene	<0.00202	U F1	0.0998	0.07150		mg/Kg		72	70 - 130
m-Xylene & p-Xylene	<0.00403	U F1	0.200	0.1450		mg/Kg		73	70 - 130
o-Xylene	<0.00202	U F1	0.0998	0.07327		mg/Kg		73	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	103		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 880-14236-A-41-E MSD

Matrix: Solid

Analysis Batch: 24523

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24483

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	<0.00202	U F1	0.100	0.06616	F1	mg/Kg		66	70 - 130	8	35
Toluene	<0.00202	U F1	0.100	0.06600	F1	mg/Kg		66	70 - 130	9	35
Ethylbenzene	<0.00202	U F1	0.100	0.06417	F1	mg/Kg		64	70 - 130	11	35
m-Xylene & p-Xylene	<0.00403	U F1	0.200	0.1290	F1	mg/Kg		64	70 - 130	12	35
o-Xylene	<0.00202	U F1	0.100	0.06558	F1	mg/Kg		65	70 - 130	11	35

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-14236-A-41-E MSD

Matrix: Solid

Analysis Batch: 24523

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24483

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	99		70 - 130

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-23857/1-A

Matrix: Solid

Analysis Batch: 23817

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23857

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil	Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/20/22 21:08	1	
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/20/22 21:08	1	
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/20/22 21:08	1	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil	Fac
1-Chlorooctane	116		70 - 130				04/20/22 15:27	04/20/22 21:08	1	
o-Terphenyl	146	S1+	70 - 130				04/20/22 15:27	04/20/22 21:08	1	

Lab Sample ID: LCS 880-23857/2-A

Matrix: Solid

Analysis Batch: 23817

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 23857

	Spike	LCS	LCS						%Rec	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Gasoline Range Organics (GRO)-C6-C10	1000	848.2		mg/Kg		85	70 - 130			
Diesel Range Organics (Over C10-C28)	1000	1074		mg/Kg		107	70 - 130			
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	120		70 - 130							
o-Terphenyl	131	S1+	70 - 130							

Lab Sample ID: LCSD 880-23857/3-A

Matrix: Solid

Analysis Batch: 23817

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 23857

	Spike	LCSD	LCSD					%Rec	RPD	RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			Limit
Gasoline Range Organics (GRO)-C6-C10	1000	897.9		mg/Kg		90	70 - 130	6		20
Diesel Range Organics (Over C10-C28)	1000	1231		mg/Kg		123	70 - 130	14		20
Surrogate	%Recovery	Qualifier	Limits							
1-Chlorooctane	145	S1+	70 - 130							
o-Terphenyl	161	S1+	70 - 130							

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2203-A-1-C MS

Matrix: Solid

Analysis Batch: 23817

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 23857

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	1000	1012		mg/Kg		99	70 - 130
Diesel Range Organics (Over C10-C28)	56.0		1000	1019		mg/Kg		96	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	122		70 - 130						
o-Terphenyl	132	S1+	70 - 130						

Lab Sample ID: 890-2203-A-1-D MSD

Matrix: Solid

Analysis Batch: 23817

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 23857

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	998	1147		mg/Kg		113	70 - 130	12	20
Diesel Range Organics (Over C10-C28)	56.0		998	1026		mg/Kg		97	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	122		70 - 130								
o-Terphenyl	133	S1+	70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23842/1-A

Matrix: Solid

Analysis Batch: 24345

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/28/22 06:12	1

Lab Sample ID: LCS 880-23842/2-A

Matrix: Solid

Analysis Batch: 24345

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	243.6		mg/Kg		97	90 - 110

Lab Sample ID: LCSD 880-23842/3-A

Matrix: Solid

Analysis Batch: 24345

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	267.2		mg/Kg		107	90 - 110	9	20

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2204-15 MS

Matrix: Solid

Analysis Batch: 24345

Client Sample ID: PH06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	7.50		250	266.0		mg/Kg		104	90 - 110		

Lab Sample ID: 890-2204-15 MSD

Matrix: Solid

Analysis Batch: 24345

Client Sample ID: PH06

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	7.50		250	245.0		mg/Kg		95	90 - 110	8	20

Lab Sample ID: 890-2205-10 MS

Matrix: Solid

Analysis Batch: 24345

Client Sample ID: PH04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride	<4.97	U	249	264.9		mg/Kg		107	90 - 110		

Lab Sample ID: 890-2205-10 MSD

Matrix: Solid

Analysis Batch: 24345

Client Sample ID: PH04

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	<4.97	U	249	247.6		mg/Kg		100	90 - 110	7	20

## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## GC VOA

## Prep Batch: 24099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-10	PH04	Total/NA	Solid	5035	
MB 880-24099/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24099/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24099/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-13981-A-14-D MS	Matrix Spike	Total/NA	Solid	5035	
880-13981-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 24248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-11	PH04	Total/NA	Solid	Total BTEX	
890-2204-12	PH05	Total/NA	Solid	Total BTEX	
890-2204-13	PH05	Total/NA	Solid	Total BTEX	
890-2204-14	PH06	Total/NA	Solid	Total BTEX	
890-2204-15	PH06	Total/NA	Solid	Total BTEX	

## Analysis Batch: 24304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-10	PH04	Total/NA	Solid	8021B	24099
MB 880-24099/5-A	Method Blank	Total/NA	Solid	8021B	24099
LCS 880-24099/1-A	Lab Control Sample	Total/NA	Solid	8021B	24099
LCSD 880-24099/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24099
880-13981-A-14-D MS	Matrix Spike	Total/NA	Solid	8021B	24099
880-13981-A-14-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24099

## Analysis Batch: 24426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-1	PH01	Total/NA	Solid	Total BTEX	
890-2205-2	PH01	Total/NA	Solid	Total BTEX	
890-2205-3	PH01	Total/NA	Solid	Total BTEX	
890-2205-4	PH01	Total/NA	Solid	Total BTEX	
890-2205-5	PH02	Total/NA	Solid	Total BTEX	
890-2205-6	PH02	Total/NA	Solid	Total BTEX	
890-2205-7	PH02	Total/NA	Solid	Total BTEX	
890-2205-8	PH03	Total/NA	Solid	Total BTEX	
890-2205-9	PH03	Total/NA	Solid	Total BTEX	
890-2205-10	PH04	Total/NA	Solid	Total BTEX	

## Analysis Batch: 24450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-11	PH04	Total/NA	Solid	8021B	24473
890-2204-12	PH05	Total/NA	Solid	8021B	24473
890-2204-13	PH05	Total/NA	Solid	8021B	24473
890-2204-14	PH06	Total/NA	Solid	8021B	24473
890-2204-15	PH06	Total/NA	Solid	8021B	24473

## Prep Batch: 24473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-11	PH04	Total/NA	Solid	5035	
890-2204-12	PH05	Total/NA	Solid	5035	
890-2204-13	PH05	Total/NA	Solid	5035	
890-2204-14	PH06	Total/NA	Solid	5035	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## GC VOA (Continued)

## Prep Batch: 24473 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-15	PH06	Total/NA	Solid	5035	

## Prep Batch: 24483

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-1	PH01	Total/NA	Solid	5035	
890-2205-2	PH01	Total/NA	Solid	5035	
890-2205-3	PH01	Total/NA	Solid	5035	
890-2205-4	PH01	Total/NA	Solid	5035	
890-2205-5	PH02	Total/NA	Solid	5035	
890-2205-6	PH02	Total/NA	Solid	5035	
890-2205-7	PH02	Total/NA	Solid	5035	
890-2205-8	PH03	Total/NA	Solid	5035	
890-2205-9	PH03	Total/NA	Solid	5035	
MB 880-24483/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24483/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24483/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14236-A-41-D MS	Matrix Spike	Total/NA	Solid	5035	
880-14236-A-41-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 24523

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-1	PH01	Total/NA	Solid	8021B	24483
890-2205-2	PH01	Total/NA	Solid	8021B	24483
890-2205-3	PH01	Total/NA	Solid	8021B	24483
890-2205-4	PH01	Total/NA	Solid	8021B	24483
890-2205-5	PH02	Total/NA	Solid	8021B	24483
890-2205-6	PH02	Total/NA	Solid	8021B	24483
890-2205-7	PH02	Total/NA	Solid	8021B	24483
890-2205-8	PH03	Total/NA	Solid	8021B	24483
890-2205-9	PH03	Total/NA	Solid	8021B	24483
MB 880-24483/5-A	Method Blank	Total/NA	Solid	8021B	24483
LCS 880-24483/1-A	Lab Control Sample	Total/NA	Solid	8021B	24483
LCSD 880-24483/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24483
880-14236-A-41-D MS	Matrix Spike	Total/NA	Solid	8021B	24483
880-14236-A-41-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24483

## GC Semi VOA

## Analysis Batch: 23813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-11	PH04	Total/NA	Solid	8015B NM	23828
890-2204-12	PH05	Total/NA	Solid	8015B NM	23828
890-2204-13	PH05	Total/NA	Solid	8015B NM	23828
890-2204-14	PH06	Total/NA	Solid	8015B NM	23828
890-2204-15	PH06	Total/NA	Solid	8015B NM	23828

## Analysis Batch: 23817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-1	PH01	Total/NA	Solid	8015B NM	23857
890-2205-2	PH01	Total/NA	Solid	8015B NM	23857
890-2205-3	PH01	Total/NA	Solid	8015B NM	23857

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## GC Semi VOA (Continued)

## Analysis Batch: 23817 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-4	PH01	Total/NA	Solid	8015B NM	23857
890-2205-5	PH02	Total/NA	Solid	8015B NM	23857
890-2205-6	PH02	Total/NA	Solid	8015B NM	23857
890-2205-7	PH02	Total/NA	Solid	8015B NM	23857
890-2205-8	PH03	Total/NA	Solid	8015B NM	23857
890-2205-9	PH03	Total/NA	Solid	8015B NM	23857
890-2205-10	PH04	Total/NA	Solid	8015B NM	23857
MB 880-23857/1-A	Method Blank	Total/NA	Solid	8015B NM	23857
LCS 880-23857/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23857
LCSD 880-23857/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23857
890-2203-A-1-C MS	Matrix Spike	Total/NA	Solid	8015B NM	23857
890-2203-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	23857

## Prep Batch: 23828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-11	PH04	Total/NA	Solid	8015NM Prep	
890-2204-12	PH05	Total/NA	Solid	8015NM Prep	
890-2204-13	PH05	Total/NA	Solid	8015NM Prep	
890-2204-14	PH06	Total/NA	Solid	8015NM Prep	
890-2204-15	PH06	Total/NA	Solid	8015NM Prep	

## Prep Batch: 23857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-1	PH01	Total/NA	Solid	8015NM Prep	
890-2205-2	PH01	Total/NA	Solid	8015NM Prep	
890-2205-3	PH01	Total/NA	Solid	8015NM Prep	
890-2205-4	PH01	Total/NA	Solid	8015NM Prep	
890-2205-5	PH02	Total/NA	Solid	8015NM Prep	
890-2205-6	PH02	Total/NA	Solid	8015NM Prep	
890-2205-7	PH02	Total/NA	Solid	8015NM Prep	
890-2205-8	PH03	Total/NA	Solid	8015NM Prep	
890-2205-9	PH03	Total/NA	Solid	8015NM Prep	
890-2205-10	PH04	Total/NA	Solid	8015NM Prep	
MB 880-23857/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23857/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23857/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2203-A-1-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2203-A-1-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 23902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-1	PH01	Total/NA	Solid	8015 NM	
890-2205-2	PH01	Total/NA	Solid	8015 NM	
890-2205-3	PH01	Total/NA	Solid	8015 NM	
890-2205-4	PH01	Total/NA	Solid	8015 NM	
890-2205-5	PH02	Total/NA	Solid	8015 NM	
890-2205-6	PH02	Total/NA	Solid	8015 NM	
890-2205-7	PH02	Total/NA	Solid	8015 NM	
890-2205-8	PH03	Total/NA	Solid	8015 NM	
890-2205-9	PH03	Total/NA	Solid	8015 NM	
890-2205-10	PH04	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## GC Semi VOA

## Analysis Batch: 23931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-11	PH04	Total/NA	Solid	8015 NM	
890-2204-12	PH05	Total/NA	Solid	8015 NM	
890-2204-13	PH05	Total/NA	Solid	8015 NM	
890-2204-14	PH06	Total/NA	Solid	8015 NM	
890-2204-15	PH06	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 23841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-11	PH04	Soluble	Solid	DI Leach	
890-2204-12	PH05	Soluble	Solid	DI Leach	
890-2204-13	PH05	Soluble	Solid	DI Leach	
890-2204-14	PH06	Soluble	Solid	DI Leach	

## Leach Batch: 23842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-15	PH06	Soluble	Solid	DI Leach	
890-2205-1	PH01	Soluble	Solid	DI Leach	
890-2205-2	PH01	Soluble	Solid	DI Leach	
890-2205-3	PH01	Soluble	Solid	DI Leach	
890-2205-4	PH01	Soluble	Solid	DI Leach	
890-2205-5	PH02	Soluble	Solid	DI Leach	
890-2205-6	PH02	Soluble	Solid	DI Leach	
890-2205-7	PH02	Soluble	Solid	DI Leach	
890-2205-8	PH03	Soluble	Solid	DI Leach	
890-2205-9	PH03	Soluble	Solid	DI Leach	
890-2205-10	PH04	Soluble	Solid	DI Leach	
MB 880-23842/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23842/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23842/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2204-15 MS	PH06	Soluble	Solid	DI Leach	
890-2204-15 MSD	PH06	Soluble	Solid	DI Leach	
890-2205-10 MS	PH04	Soluble	Solid	DI Leach	
890-2205-10 MSD	PH04	Soluble	Solid	DI Leach	

## Analysis Batch: 24343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-11	PH04	Soluble	Solid	300.0	23841
890-2204-12	PH05	Soluble	Solid	300.0	23841
890-2204-13	PH05	Soluble	Solid	300.0	23841
890-2204-14	PH06	Soluble	Solid	300.0	23841

## Analysis Batch: 24345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-15	PH06	Soluble	Solid	300.0	23842
890-2205-1	PH01	Soluble	Solid	300.0	23842
890-2205-2	PH01	Soluble	Solid	300.0	23842
890-2205-3	PH01	Soluble	Solid	300.0	23842
890-2205-4	PH01	Soluble	Solid	300.0	23842
890-2205-5	PH02	Soluble	Solid	300.0	23842

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

## HPLC/IC (Continued)

## Analysis Batch: 24345 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-6	PH02	Soluble	Solid	300.0	23842
890-2205-7	PH02	Soluble	Solid	300.0	23842
890-2205-8	PH03	Soluble	Solid	300.0	23842
890-2205-9	PH03	Soluble	Solid	300.0	23842
890-2205-10	PH04	Soluble	Solid	300.0	23842
MB 880-23842/1-A	Method Blank	Soluble	Solid	300.0	23842
LCS 880-23842/2-A	Lab Control Sample	Soluble	Solid	300.0	23842
LCSD 880-23842/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23842
890-2204-15 MS	PH06	Soluble	Solid	300.0	23842
890-2204-15 MSD	PH06	Soluble	Solid	300.0	23842
890-2205-10 MS	PH04	Soluble	Solid	300.0	23842
890-2205-10 MSD	PH04	Soluble	Solid	300.0	23842

## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH04

Lab Sample ID: 890-2204-11

Date Collected: 04/18/22 11:05

Matrix: Solid

Date Received: 04/19/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 19:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 03:08	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 01:46	CH	XEN MID

Client Sample ID: PH05

Lab Sample ID: 890-2204-12

Date Collected: 04/18/22 11:25

Matrix: Solid

Date Received: 04/19/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 19:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 03:28	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 01:52	CH	XEN MID

Client Sample ID: PH05

Lab Sample ID: 890-2204-13

Date Collected: 04/18/22 11:30

Matrix: Solid

Date Received: 04/19/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 19:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 03:49	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 01:58	CH	XEN MID

Client Sample ID: PH06

Lab Sample ID: 890-2204-14

Date Collected: 04/18/22 11:45

Matrix: Solid

Date Received: 04/19/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 20:03	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

**Client Sample ID: PH06****Lab Sample ID: 890-2204-14****Date Collected: 04/18/22 11:45****Matrix: Solid****Date Received: 04/19/22 13:33**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 04:09	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 02:05	CH	XEN MID

**Client Sample ID: PH06****Lab Sample ID: 890-2204-15****Date Collected: 04/18/22 11:50****Matrix: Solid****Date Received: 04/19/22 13:33**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 20:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 04:30	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 06:31	CH	XEN MID

**Client Sample ID: PH01****Lab Sample ID: 890-2205-1****Date Collected: 04/18/22 10:00****Matrix: Solid****Date Received: 04/19/22 13:33**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 16:42	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 03:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.02 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 06:50	CH	XEN MID

**Client Sample ID: PH01****Lab Sample ID: 890-2205-2****Date Collected: 04/18/22 10:05****Matrix: Solid****Date Received: 04/19/22 13:33**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 17:02	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 03:41	AJ	XEN MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

**Client Sample ID: PH01****Date Collected: 04/18/22 10:05****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2205-2****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 06:56	CH	XEN MID

**Client Sample ID: PH01****Date Collected: 04/18/22 10:10****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2205-3****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 17:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 04:02	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 07:02	CH	XEN MID

**Client Sample ID: PH01****Date Collected: 04/18/22 15:45****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2205-4****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 17:43	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 04:22	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 07:09	CH	XEN MID

**Client Sample ID: PH02****Date Collected: 04/18/22 10:20****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2205-5****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 18:04	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 00:18	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 07:28	CH	XEN MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

**Client Sample ID: PH02****Date Collected: 04/18/22 10:25****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2205-6****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 18:25	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 00:38	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 07:34	CH	XEN MID

**Client Sample ID: PH02****Date Collected: 04/18/22 10:30****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2205-7****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 18:45	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 00:58	AJ	XEN MID
Soluble	Leach	DI Leach			5.04 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 07:40	CH	XEN MID

**Client Sample ID: PH03****Date Collected: 04/18/22 10:45****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2205-8****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 19:06	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 01:19	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 07:47	CH	XEN MID

**Client Sample ID: PH03****Date Collected: 04/18/22 10:50****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2205-9****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24483	04/29/22 09:22	MR	XEN MID
Total/NA	Analysis	8021B		1			24523	04/29/22 19:26	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Client Sample ID: PH03

Date Collected: 04/18/22 10:50

Date Received: 04/19/22 13:33

Lab Sample ID: 890-2205-9

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 01:39	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 07:53	CH	XEN MID

Client Sample ID: PH04

Date Collected: 04/18/22 11:00

Date Received: 04/19/22 13:33

Lab Sample ID: 890-2205-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24099	04/23/22 12:31	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24304	04/27/22 19:41	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 02:00	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 07:59	CH	XEN MID

## Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

## Method Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

## Sample Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-2  
SDG: 03A198701

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2204-11	PH04	Solid	04/18/22 11:05	04/19/22 13:33	1
890-2204-12	PH05	Solid	04/18/22 11:25	04/19/22 13:33	0.5
890-2204-13	PH05	Solid	04/18/22 11:30	04/19/22 13:33	1
890-2204-14	PH06	Solid	04/18/22 11:45	04/19/22 13:33	0.5
890-2204-15	PH06	Solid	04/18/22 11:50	04/19/22 13:33	1
890-2205-1	PH01	Solid	04/18/22 10:00	04/19/22 13:33	0.5
890-2205-2	PH01	Solid	04/18/22 10:05	04/19/22 13:33	1
890-2205-3	PH01	Solid	04/18/22 10:10	04/19/22 13:33	2
890-2205-4	PH01	Solid	04/18/22 15:45	04/19/22 13:33	3
890-2205-5	PH02	Solid	04/18/22 10:20	04/19/22 13:33	0.5
890-2205-6	PH02	Solid	04/18/22 10:25	04/19/22 13:33	1
890-2205-7	PH02	Solid	04/18/22 10:30	04/19/22 13:33	2
890-2205-8	PH03	Solid	04/18/22 10:45	04/19/22 13:33	0.5
890-2205-9	PH03	Solid	04/18/22 10:50	04/19/22 13:33	1
890-2205-10	PH04	Solid	04/18/22 11:00	04/19/22 13:33	0.5



Environment Testing  
Xenco

### Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 2

Project Manager:	Ben Bell	Bill to: (if different)	Tim Riley
Company Name:	Ensolvim, LLC.	Company Name:	Devon Energy Corporation
Address:	231 W Northwest Hwy Suite 130A	Address:	5315 Buena Vista Dr.
City/State/Zip:	Dallas, TX 75202	City/State/Zip:	Carlsbad, NM 88220
Phone:	214-702-3389	Email:	jim.riley@devon.com

Work Order Comments:	
Program: UST/PSR <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	State of Project:
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	Deliverables: EDO <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:

Project Name:	Recos Fed 14	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres Code	
Project Number:	03A1987014	Due Date:			
Project Location:	CC: 1061084701	TAT starts the day received by the lab. If received by 4:30pm			
Sample Name:	Convey Shore	Parameters			
PO #:					



890-2205 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grav Comp	# of Cont	BTEX	TPH	Chlorides	Preservative Codes	Sample Comments
PH01	S	04/15/22	1000	0.5'	6	1	X	X	X	None: NO Cool: Cool HCL: HC H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : NABIS Na <sub>2</sub> O <sub>2</sub> : NaSO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SARC	
PH01			1005	1'							
PH01			1010	2'							
PH01			1045	3'							
PH02			1020	0.5'							
PH02			1025	1'							
PH02			1030	2'							
PH03			1045	0.5'							
PH03			1050	1'							
PH04			1100	0.5'							

Total 2007/6010 2008/6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed TCLP/SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4-19-2013			

Revised Date: 08/27/2019



**Environment Testing**  
**Xenco**

### Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: \_\_\_\_\_

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Project Manager:		Bill to: (if different)	
Company Name:		Company Name:	
Address:		Address:	
City, State ZIP:		City, State ZIP:	
Phone:		Email:	

Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Pecos Fed IY	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush
Project Number:	03A1987014	Due Date:	
Project Location:	CC1061084701	TAT starts the day received by the lab, if received by 4:30pm	
Sampler's Name:	Conner Shore		
P.O. #:			

SAMPLE RECEIPT		Parameters	
Temp Blank:	Yes No	Wet Ice:	Yes No
Thermometer ID:			
Cooler Custody Seals:	Yes No	Correction Factor:	
Sample Custody Seals:	Yes No N/A	Temperature Reading:	
Total Containers:		Corrected Temperature:	

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes	Sample Comments
PH04	S	04/16/20	11:05	1'	G	1	BTEX		None: NO DI Water: H <sub>2</sub> O Cool: Cool MeOH: Me HCL: HC HNO <sub>3</sub> : HN H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> H <sub>3</sub> PO <sub>4</sub> : HP NaHSO <sub>4</sub> : a: NABIS Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub> Zn Acetate+NaOH: Zn NaOH+Ascorbic Acid: SAPC	
PH05			11:25	0.5'		1	TPH			
PH05			11:30	1'		1				
PH06			11:45	0.5'		1				
PH06			11:50	1'		1				

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO<sub>2</sub> Na Sr Ti Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of sample constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4/19/2021 13:33			





## Eurofins Carlsbad

1089 N Canal St.  
Carlsbad NIM 88220  
Phone 575-988-3199 Fax 575-988-3199

## Chain of Custody Record



## Environment Testing

[illegible]

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2205-1

SDG Number: 03A1987014

Login Number: 2205

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2205-1

SDG Number: 03A1987014

**Login Number: 2205****List Number: 2****Creator: Teel, Brianna****List Source: Eurofins Midland****List Creation: 04/20/22 10:37 AM**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



## Environment Testing America

### ANALYTICAL REPORT

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad, NM 88220  
Tel: (575)988-3199

Laboratory Job ID: 890-2204-1

Laboratory Sample Delivery Group: 03A198701

Client Project/Site: Pecos Fed 1Y

Revision: 1

#### For:

Ensolum  
705 W. Wadley  
Suite 210  
Midland, Texas 79701

Attn: Joseph Hernandez

Authorized for release by:

5/19/2022 2:00:02 PM

Jessica Kramer, Project Manager  
(432)704-5440

[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)

#### LINKS

Review your project  
results through



Have a Question?



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Laboratory Job ID: 890-2204-1  
SDG: 03A198701

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



# Case Narrative

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Job ID: 890-2204-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative  
890-2204-1

Receipt

The samples were received on 4/19/2022 1:33 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.0°C

GC VOA

Method 8021B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-24266 and analytical batch 880-24447 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 880-23828 and analytical batch 880-23813 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH07

Lab Sample ID: 890-2204-1

Date Collected: 04/18/22 12:55

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U F2 F1	0.00200		mg/Kg		04/23/22 13:41	04/25/22 18:56	1
Toluene	<0.00200	U F2 F1	0.00200		mg/Kg		04/23/22 13:41	04/25/22 18:56	1
Ethylbenzene	<0.00200	U F2 F1	0.00200		mg/Kg		04/23/22 13:41	04/25/22 18:56	1
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.00401		mg/Kg		04/23/22 13:41	04/25/22 18:56	1
o-Xylene	<0.00200	U F2 F1	0.00200		mg/Kg		04/23/22 13:41	04/25/22 18:56	1
Xylenes, Total	<0.00401	U F2 F1	0.00401		mg/Kg		04/23/22 13:41	04/25/22 18:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	100		70 - 130	04/23/22 13:41	04/25/22 18:56	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/23/22 13:41	04/25/22 18:56	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/20/22 23:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/20/22 23:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/20/22 23:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130	04/20/22 11:30	04/20/22 23:21	1
o-Terphenyl	102		70 - 130	04/20/22 11:30	04/20/22 23:21	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.95	U	4.95		mg/Kg			04/28/22 00:17	1

Client Sample ID: PH07

Lab Sample ID: 890-2204-2

Date Collected: 04/18/22 13:00

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/23/22 13:41	04/25/22 19:23	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/23/22 13:41	04/25/22 19:23	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/23/22 13:41	04/25/22 19:23	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/23/22 13:41	04/25/22 19:23	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/23/22 13:41	04/25/22 19:23	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/23/22 13:41	04/25/22 19:23	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		70 - 130	04/23/22 13:41	04/25/22 19:23	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH07

Lab Sample ID: 890-2204-2

Date Collected: 04/18/22 13:00

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	96		70 - 130	04/23/22 13:41	04/25/22 19:23	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/20/22 23:42	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/20/22 23:42	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/20/22 23:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				04/20/22 11:30	04/20/22 23:42	1
o-Terphenyl	97		70 - 130				04/20/22 11:30	04/20/22 23:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.04	U	5.04		mg/Kg			04/28/22 00:23	1

Client Sample ID: PH08

Lab Sample ID: 890-2204-3

Date Collected: 04/18/22 13:05

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/23/22 13:41	04/25/22 19:50	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/23/22 13:41	04/25/22 19:50	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/23/22 13:41	04/25/22 19:50	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/23/22 13:41	04/25/22 19:50	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/23/22 13:41	04/25/22 19:50	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/23/22 13:41	04/25/22 19:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	88		70 - 130	04/23/22 13:41	04/25/22 19:50	1
1,4-Difluorobenzene (Surr)	91		70 - 130	04/23/22 13:41	04/25/22 19:50	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			04/21/22 10:45	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH08

Lab Sample ID: 890-2204-3

Date Collected: 04/18/22 13:05

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		04/20/22 11:30	04/21/22 00:02	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		04/20/22 11:30	04/21/22 00:02	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		04/20/22 11:30	04/21/22 00:02	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				04/20/22 11:30	04/21/22 00:02	1
o-Terphenyl	97		70 - 130				04/20/22 11:30	04/21/22 00:02	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/28/22 00:29	1

Client Sample ID: PH08

Lab Sample ID: 890-2204-4

Date Collected: 04/18/22 13:10

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/23/22 13:41	04/25/22 20:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/23/22 13:41	04/25/22 20:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/23/22 13:41	04/25/22 20:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/23/22 13:41	04/25/22 20:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/23/22 13:41	04/25/22 20:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/23/22 13:41	04/25/22 20:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	83		70 - 130				04/23/22 13:41	04/25/22 20:17	1
1,4-Difluorobenzene (Surr)	91		70 - 130				04/23/22 13:41	04/25/22 20:17	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 00:23	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 00:23	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 00:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				04/20/22 11:30	04/21/22 00:23	1
o-Terphenyl	97		70 - 130				04/20/22 11:30	04/21/22 00:23	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH08

Lab Sample ID: 890-2204-4

Date Collected: 04/18/22 13:10

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10.0		5.01		mg/Kg			04/28/22 00:36	1

Client Sample ID: PH09

Lab Sample ID: 890-2204-5

Date Collected: 04/18/22 13:20

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00202	U	0.00202		mg/Kg		04/26/22 15:48	04/29/22 02:22	1
Toluene	<0.00202	U	0.00202		mg/Kg		04/26/22 15:48	04/29/22 02:22	1
Ethylbenzene	<0.00202	U	0.00202		mg/Kg		04/26/22 15:48	04/29/22 02:22	1
m-Xylene & p-Xylene	<0.00403	U	0.00403		mg/Kg		04/26/22 15:48	04/29/22 02:22	1
o-Xylene	<0.00202	U	0.00202		mg/Kg		04/26/22 15:48	04/29/22 02:22	1
Xylenes, Total	<0.00403	U	0.00403		mg/Kg		04/26/22 15:48	04/29/22 02:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				04/26/22 15:48	04/29/22 02:22	1
1,4-Difluorobenzene (Surr)	98		70 - 130				04/26/22 15:48	04/29/22 02:22	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00403	U	0.00403		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 00:43	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 00:43	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 00:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				04/20/22 11:30	04/21/22 00:43	1
o-Terphenyl	96		70 - 130				04/20/22 11:30	04/21/22 00:43	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<4.97	U	4.97		mg/Kg			04/28/22 00:42	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH09

Lab Sample ID: 890-2204-6

Date Collected: 04/18/22 13:25

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 17:19	1
Toluene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 17:19	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 17:19	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		04/29/22 09:06	04/29/22 17:19	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		04/29/22 09:06	04/29/22 17:19	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		04/29/22 09:06	04/29/22 17:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	04/29/22 09:06	04/29/22 17:19	1
1,4-Difluorobenzene (Surr)	94		70 - 130	04/29/22 09:06	04/29/22 17:19	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 01:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 01:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 01:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130	04/20/22 11:30	04/21/22 01:25	1
o-Terphenyl	97		70 - 130	04/20/22 11:30	04/21/22 01:25	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.71		5.05		mg/Kg			04/28/22 01:01	1

Client Sample ID: PH10

Lab Sample ID: 890-2204-7

Date Collected: 04/18/22 13:35

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 17:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 17:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 17:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/29/22 09:06	04/29/22 17:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 17:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/29/22 09:06	04/29/22 17:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	04/29/22 09:06	04/29/22 17:40	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH10

Lab Sample ID: 890-2204-7

Date Collected: 04/18/22 13:35

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	98		70 - 130	04/29/22 09:06	04/29/22 17:40	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00400	U	0.00400		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 01:45	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 01:45	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 01:45	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				04/20/22 11:30	04/21/22 01:45	1
o-Terphenyl	97		70 - 130				04/20/22 11:30	04/21/22 01:45	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21.2		4.99		mg/Kg			04/28/22 01:07	1

Client Sample ID: PH10

Lab Sample ID: 890-2204-8

Date Collected: 04/18/22 13:40

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 18:00	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 18:00	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 18:00	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		04/29/22 09:06	04/29/22 18:00	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 18:00	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		04/29/22 09:06	04/29/22 18:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	109		70 - 130	04/29/22 09:06	04/29/22 18:00	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/29/22 09:06	04/29/22 18:00	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			04/21/22 10:45	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH10

Lab Sample ID: 890-2204-8

Date Collected: 04/18/22 13:40

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 02:06	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 02:06	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 11:30	04/21/22 02:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				04/20/22 11:30	04/21/22 02:06	1
o-Terphenyl	96		70 - 130				04/20/22 11:30	04/21/22 02:06	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	112		5.00		mg/Kg			04/28/22 01:27	1

Client Sample ID: PH13

Lab Sample ID: 890-2204-9

Date Collected: 04/19/22 08:55

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		04/29/22 09:06	04/29/22 18:20	1
Toluene	<0.00198	U	0.00198		mg/Kg		04/29/22 09:06	04/29/22 18:20	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		04/29/22 09:06	04/29/22 18:20	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		04/29/22 09:06	04/29/22 18:20	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		04/29/22 09:06	04/29/22 18:20	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		04/29/22 09:06	04/29/22 18:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130				04/29/22 09:06	04/29/22 18:20	1
1,4-Difluorobenzene (Surr)	94		70 - 130				04/29/22 09:06	04/29/22 18:20	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 02:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 02:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 02:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	87		70 - 130				04/20/22 11:30	04/21/22 02:26	1
o-Terphenyl	98		70 - 130				04/20/22 11:30	04/21/22 02:26	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH13

Lab Sample ID: 890-2204-9

Date Collected: 04/19/22 08:55

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	279		5.01		mg/Kg			04/28/22 01:33	1

Client Sample ID: PH13

Lab Sample ID: 890-2204-10

Date Collected: 04/19/22 09:00

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 18:41	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 18:41	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 18:41	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		04/29/22 09:06	04/29/22 18:41	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 18:41	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		04/29/22 09:06	04/29/22 18:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130				04/29/22 09:06	04/29/22 18:41	1
1,4-Difluorobenzene (Surr)	94		70 - 130				04/29/22 09:06	04/29/22 18:41	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			04/26/22 10:02	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 10:45	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 02:47	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 02:47	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/21/22 02:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				04/20/22 11:30	04/21/22 02:47	1
o-Terphenyl	100		70 - 130				04/20/22 11:30	04/21/22 02:47	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	313		5.00		mg/Kg			04/28/22 01:39	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH14

Lab Sample ID: 890-2205-11

Date Collected: 04/19/22 08:25

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U *	0.00199		mg/Kg		04/23/22 12:31	04/27/22 20:01	1
Toluene	<0.00199	U *	0.00199		mg/Kg		04/23/22 12:31	04/27/22 20:01	1
Ethylbenzene	<0.00199	U *	0.00199		mg/Kg		04/23/22 12:31	04/27/22 20:01	1
m-Xylene & p-Xylene	<0.00398	U *	0.00398		mg/Kg		04/23/22 12:31	04/27/22 20:01	1
o-Xylene	<0.00199	U *	0.00199		mg/Kg		04/23/22 12:31	04/27/22 20:01	1
Xylenes, Total	<0.00398	U *	0.00398		mg/Kg		04/23/22 12:31	04/27/22 20:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/23/22 12:31	04/27/22 20:01	1
1,4-Difluorobenzene (Surr)	104		70 - 130	04/23/22 12:31	04/27/22 20:01	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 02:40	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 02:40	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 15:27	04/21/22 02:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	117		70 - 130	04/20/22 15:27	04/21/22 02:40	1
o-Terphenyl	142	S1+	70 - 130	04/20/22 15:27	04/21/22 02:40	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	93.3		4.99		mg/Kg			04/28/22 08:18	1

Client Sample ID: PH14

Lab Sample ID: 890-2205-12

Date Collected: 04/19/22 08:30

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U *	0.00201		mg/Kg		04/23/22 12:31	04/27/22 20:21	1
Toluene	<0.00201	U *	0.00201		mg/Kg		04/23/22 12:31	04/27/22 20:21	1
Ethylbenzene	<0.00201	U *	0.00201		mg/Kg		04/23/22 12:31	04/27/22 20:21	1
m-Xylene & p-Xylene	<0.00402	U *	0.00402		mg/Kg		04/23/22 12:31	04/27/22 20:21	1
o-Xylene	<0.00201	U *	0.00201		mg/Kg		04/23/22 12:31	04/27/22 20:21	1
Xylenes, Total	<0.00402	U *	0.00402		mg/Kg		04/23/22 12:31	04/27/22 20:21	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		70 - 130	04/23/22 12:31	04/27/22 20:21	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH14

Lab Sample ID: 890-2205-12

Date Collected: 04/19/22 08:30

Matrix: Solid

Date Received: 04/19/22 13:33

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	105		70 - 130	04/23/22 12:31	04/27/22 20:21	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg	-		04/28/22 11:55	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg	-		04/21/22 09:38	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg	-	04/20/22 15:27	04/21/22 03:01	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 03:01	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		04/20/22 15:27	04/21/22 03:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	120		70 - 130				04/20/22 15:27	04/21/22 03:01	1
o-Terphenyl	148	S1+	70 - 130				04/20/22 15:27	04/21/22 03:01	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	248		5.03		mg/Kg	-		04/28/22 08:25	1

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## Surrogate Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
880-14226-A-1-A MS	Matrix Spike	105	101
880-14226-A-1-B MSD	Matrix Spike Duplicate	98	97
880-14236-A-1-D MS	Matrix Spike	108	98
880-14236-A-1-E MSD	Matrix Spike Duplicate	104	91
890-2204-1	PH07	100	96
890-2204-1 MS	PH07	20 S1-	20 S1-
890-2204-1 MSD	PH07	91	87
890-2204-2	PH07	95	96
890-2204-3	PH08	88	91
890-2204-4	PH08	83	91
890-2204-5	PH09	103	98
890-2204-6	PH09	110	94
890-2204-7	PH10	107	98
890-2204-8	PH10	109	96
890-2204-9	PH13	107	94
890-2204-10	PH13	103	94
890-2205-11	PH14	101	104
890-2205-12	PH14	103	105
LCS 880-24102/1-A	Lab Control Sample	98	96
LCS 880-24266/1-A	Lab Control Sample	99	98
LCS 880-24473/1-A	Lab Control Sample	100	99
LCSD 880-24102/2-A	Lab Control Sample Dup	92	97
LCSD 880-24266/2-A	Lab Control Sample Dup	101	100
LCSD 880-24473/2-A	Lab Control Sample Dup	106	98
MB 880-24100/5-A	Method Blank	69 S1-	88
MB 880-24102/5-A	Method Blank	71	89
MB 880-24266/5-A	Method Blank	101	96
MB 880-24473/5-A	Method Blank	99	97
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2202-A-1-B MS	Matrix Spike	101	97
890-2202-A-1-C MSD	Matrix Spike Duplicate	95	92
890-2204-1	PH07	87	102
890-2204-2	PH07	86	97
890-2204-3	PH08	88	97
890-2204-4	PH08	87	97
890-2204-5	PH09	85	96
890-2204-6	PH09	85	97
890-2204-7	PH10	86	97
890-2204-8	PH10	86	96
890-2204-9	PH13	87	98

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## Surrogate Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

**Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)**

**Matrix: Solid**

**Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2204-10	PH13	88	100
890-2205-11	PH14	117	142 S1+
890-2205-12	PH14	120	148 S1+
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

**Method: 8015B NM - Diesel Range Organics (DRO) (GC)**

**Matrix: Solid**

**Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO2 (70-130)	OTPH2 (70-130)
LCS 880-23828/2-A	Lab Control Sample	99	117
LCSD 880-23828/3-A	Lab Control Sample Dup	109	130
MB 880-23828/1-A	Method Blank	85	102
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-24100/5-A

Matrix: Solid

Analysis Batch: 24112

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24100

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/23/22 12:32	04/25/22 02:37	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/23/22 12:32	04/25/22 02:37	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/23/22 12:32	04/25/22 02:37	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/23/22 12:32	04/25/22 02:37	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/23/22 12:32	04/25/22 02:37	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/23/22 12:32	04/25/22 02:37	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	69	S1-	70 - 130	04/23/22 12:32	04/25/22 02:37	1
1,4-Difluorobenzene (Surr)	88		70 - 130	04/23/22 12:32	04/25/22 02:37	1

Lab Sample ID: MB 880-24102/5-A

Matrix: Solid

Analysis Batch: 24112

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24102

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/23/22 13:41	04/25/22 18:29	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/23/22 13:41	04/25/22 18:29	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/23/22 13:41	04/25/22 18:29	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/23/22 13:41	04/25/22 18:29	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/23/22 13:41	04/25/22 18:29	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/23/22 13:41	04/25/22 18:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	71		70 - 130	04/23/22 13:41	04/25/22 18:29	1
1,4-Difluorobenzene (Surr)	89		70 - 130	04/23/22 13:41	04/25/22 18:29	1

Lab Sample ID: LCS 880-24102/1-A

Matrix: Solid

Analysis Batch: 24112

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24102

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.1071		mg/Kg		107	70 - 130
Toluene	0.100	0.1043		mg/Kg		104	70 - 130
Ethylbenzene	0.100	0.1020		mg/Kg		102	70 - 130
m-Xylene & p-Xylene	0.200	0.2047		mg/Kg		102	70 - 130
o-Xylene	0.100	0.1063		mg/Kg		106	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	96		70 - 130

Lab Sample ID: LCSD 880-24102/2-A

Matrix: Solid

Analysis Batch: 24112

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24102

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.09340		mg/Kg		93	70 - 130	14	35

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCSD 880-24102/2-A

Matrix: Solid

Analysis Batch: 24112

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24102

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Toluene	0.100	0.08626		mg/Kg		86	70 - 130	19	35
Ethylbenzene	0.100	0.08799		mg/Kg		88	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.1726		mg/Kg		86	70 - 130	17	35
o-Xylene	0.100	0.09023		mg/Kg		90	70 - 130	16	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	92		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: 890-2204-1 MS

Matrix: Solid

Analysis Batch: 24112

Client Sample ID: PH07

Prep Type: Total/NA

Prep Batch: 24102

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00200	U F2 F1	0.0998	0.02558	F1	mg/Kg		26	70 - 130
Toluene	<0.00200	U F2 F1	0.0998	0.02244	F1	mg/Kg		22	70 - 130
Ethylbenzene	<0.00200	U F2 F1	0.0998	0.01998	F1	mg/Kg		20	70 - 130
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.200	0.04040	F1	mg/Kg		20	70 - 130
o-Xylene	<0.00200	U F2 F1	0.0998	0.01752	F1	mg/Kg		18	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	20	S1-	70 - 130
1,4-Difluorobenzene (Surr)	20	S1-	70 - 130

Lab Sample ID: 890-2204-1 MSD

Matrix: Solid

Analysis Batch: 24112

Client Sample ID: PH07

Prep Type: Total/NA

Prep Batch: 24102

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U F2 F1	0.0996	0.03775	F2 F1	mg/Kg		38	70 - 130	38	35
Toluene	<0.00200	U F2 F1	0.0996	0.03415	F2 F1	mg/Kg		34	70 - 130	41	35
Ethylbenzene	<0.00200	U F2 F1	0.0996	0.03468	F2 F1	mg/Kg		35	70 - 130	54	35
m-Xylene & p-Xylene	<0.00401	U F2 F1	0.199	0.07556	F2 F1	mg/Kg		38	70 - 130	61	35
o-Xylene	<0.00200	U F2 F1	0.0996	0.04149	F2 F1	mg/Kg		42	70 - 130	81	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: MB 880-24266/5-A

Matrix: Solid

Analysis Batch: 24447

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24266

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/26/22 15:48	04/28/22 22:50	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/26/22 15:48	04/28/22 22:50	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/26/22 15:48	04/28/22 22:50	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/26/22 15:48	04/28/22 22:50	1

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: MB 880-24266/5-A

Matrix: Solid

Analysis Batch: 24447

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24266

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/26/22 15:48	04/28/22 22:50	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/26/22 15:48	04/28/22 22:50	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	04/26/22 15:48	04/28/22 22:50	1
1,4-Difluorobenzene (Surr)	96		70 - 130	04/26/22 15:48	04/28/22 22:50	1

Lab Sample ID: LCS 880-24266/1-A

Matrix: Solid

Analysis Batch: 24447

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24266

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08488		mg/Kg		85	70 - 130
Toluene	0.100	0.08669		mg/Kg		87	70 - 130
Ethylbenzene	0.100	0.08850		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1841		mg/Kg		92	70 - 130
o-Xylene	0.100	0.1000		mg/Kg		100	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: LCSD 880-24266/2-A

Matrix: Solid

Analysis Batch: 24447

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24266

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	Limit
Benzene	0.100	0.07528		mg/Kg		75	70 - 130	12	35
Toluene	0.100	0.07426		mg/Kg		74	70 - 130	15	35
Ethylbenzene	0.100	0.07590		mg/Kg		76	70 - 130	15	35
m-Xylene & p-Xylene	0.200	0.1578		mg/Kg		79	70 - 130	15	35
o-Xylene	0.100	0.08448		mg/Kg		84	70 - 130	17	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	101		70 - 130
1,4-Difluorobenzene (Surr)	100		70 - 130

Lab Sample ID: 880-14226-A-1-A MS

Matrix: Solid

Analysis Batch: 24447

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24266

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U F1	0.0998	0.08489		mg/Kg		85	70 - 130
Toluene	<0.00199	U F1	0.0998	0.08443		mg/Kg		84	70 - 130
Ethylbenzene	<0.00199	U F1	0.0998	0.08669		mg/Kg		86	70 - 130
m-Xylene & p-Xylene	<0.00398	U F1	0.200	0.1803		mg/Kg		90	70 - 130
o-Xylene	<0.00199	U F1	0.0998	0.09714		mg/Kg		97	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 880-14226-A-1-A MS

Matrix: Solid

Analysis Batch: 24447

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24266

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	105		70 - 130
1,4-Difluorobenzene (Surr)	101		70 - 130

Lab Sample ID: 880-14226-A-1-B MSD

Matrix: Solid

Analysis Batch: 24447

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24266

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Toluene	<0.00199	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
Ethylbenzene	<0.00199	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35
m-Xylene & p-Xylene	<0.00398	U F1	0.198	<0.00396	U F1	mg/Kg		0	70 - 130	NC	35
o-Xylene	<0.00199	U F1	0.0990	<0.00198	U F1	mg/Kg		0	70 - 130	NC	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	98		70 - 130
1,4-Difluorobenzene (Surr)	97		70 - 130

Lab Sample ID: MB 880-24473/5-A

Matrix: Solid

Analysis Batch: 24450

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 24473

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 11:56	1
Toluene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 11:56	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 11:56	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		04/29/22 09:06	04/29/22 11:56	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		04/29/22 09:06	04/29/22 11:56	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		04/29/22 09:06	04/29/22 11:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		70 - 130	04/29/22 09:06	04/29/22 11:56	1
1,4-Difluorobenzene (Surr)	97		70 - 130	04/29/22 09:06	04/29/22 11:56	1

Lab Sample ID: LCS 880-24473/1-A

Matrix: Solid

Analysis Batch: 24450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24473

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.08917		mg/Kg		89	70 - 130
Toluene	0.100	0.08875		mg/Kg		89	70 - 130
Ethylbenzene	0.100	0.09220		mg/Kg		92	70 - 130
m-Xylene & p-Xylene	0.200	0.1923		mg/Kg		96	70 - 130
o-Xylene	0.100	0.1035		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	100		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: LCS 880-24473/1-A

Matrix: Solid

Analysis Batch: 24450

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 24473

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1,4-Difluorobenzene (Surr)	99		70 - 130

Lab Sample ID: LCSD 880-24473/2-A

Matrix: Solid

Analysis Batch: 24450

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 24473

	LCS	LCS									
Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene			0.100	0.09182		mg/Kg		92	70 - 130	3	35
Toluene			0.100	0.09758		mg/Kg		98	70 - 130	9	35
Ethylbenzene			0.100	0.1017		mg/Kg		102	70 - 130	10	35
m-Xylene & p-Xylene			0.200	0.2142		mg/Kg		107	70 - 130	11	35
o-Xylene			0.100	0.1167		mg/Kg		117	70 - 130	12	35

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	106		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-14236-A-1-D MS

Matrix: Solid

Analysis Batch: 24450

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 24473

	Sample	Sample	Spike	MS	MS						
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene	<0.00200	U	0.0998	0.07828		mg/Kg		78	70 - 130		
Toluene	<0.00200	U	0.0998	0.08213		mg/Kg		82	70 - 130		
Ethylbenzene	<0.00200	U	0.0998	0.08533		mg/Kg		84	70 - 130		
m-Xylene & p-Xylene	<0.00401	U	0.200	0.1784		mg/Kg		89	70 - 130		
o-Xylene	<0.00200	U	0.0998	0.09675		mg/Kg		97	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	98		70 - 130

Lab Sample ID: 880-14236-A-1-E MSD

Matrix: Solid

Analysis Batch: 24450

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 24473

	Sample	Sample	Spike	MSD	MSD						
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00200	U	0.0996	0.07066		mg/Kg		71	70 - 130	10	35
Toluene	<0.00200	U	0.0996	0.07891		mg/Kg		79	70 - 130	4	35
Ethylbenzene	<0.00200	U	0.0996	0.08422		mg/Kg		83	70 - 130	1	35
m-Xylene & p-Xylene	<0.00401	U	0.199	0.1778		mg/Kg		89	70 - 130	0	35
o-Xylene	<0.00200	U	0.0996	0.09628		mg/Kg		97	70 - 130	0	35

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-23828/1-A

Matrix: Solid

Analysis Batch: 23813

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 23828

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/20/22 19:51	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/20/22 19:51	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		04/20/22 11:30	04/20/22 19:51	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				04/20/22 11:30	04/20/22 19:51	1
o-Terphenyl	102		70 - 130				04/20/22 11:30	04/20/22 19:51	1

Lab Sample ID: LCS 880-23828/2-A

Matrix: Solid

Analysis Batch: 23813

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 23828

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	1000	1052		mg/Kg		105	70 - 130	
Diesel Range Organics (Over C10-C28)	1000	909.6		mg/Kg		91	70 - 130	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
1-Chlorooctane	99		70 - 130					
o-Terphenyl	117		70 - 130					

Lab Sample ID: LCSD 880-23828/3-A

Matrix: Solid

Analysis Batch: 23813

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 23828

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	1088		mg/Kg		109	70 - 130	3	20
Diesel Range Organics (Over C10-C28)	1000	946.2		mg/Kg		95	70 - 130	4	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	109		70 - 130						
o-Terphenyl	130		70 - 130						

Lab Sample ID: 890-2202-A-1-B MS

Matrix: Solid

Analysis Batch: 23813

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 23828

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	
Gasoline Range Organics (GRO)-C6-C10	148	F2	1000	1329		mg/Kg		118	70 - 130	
Diesel Range Organics (Over C10-C28)	3210		1000	4394		mg/Kg		119	70 - 130	

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-2202-A-1-B MS

Matrix: Solid

Analysis Batch: 23813

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 23828

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	97		70 - 130

Lab Sample ID: 890-2202-A-1-C MSD

Matrix: Solid

Analysis Batch: 23813

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 23828

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	148	F2	998	930.3	F2	mg/Kg		78	70 - 130	35	20
Diesel Range Organics (Over C10-C28)	3210		998	4174		mg/Kg		97	70 - 130	5	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	95		70 - 130
o-Terphenyl	92		70 - 130

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-23841/1-A

Matrix: Solid

Analysis Batch: 24343

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			04/27/22 22:54	1

Lab Sample ID: LCS 880-23841/2-A

Matrix: Solid

Analysis Batch: 24343

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	233.9		mg/Kg		94	90 - 110

Lab Sample ID: LCSD 880-23841/3-A

Matrix: Solid

Analysis Batch: 24343

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	248.6		mg/Kg		99	90 - 110	6	20

Lab Sample ID: 890-2204-5 MS

Matrix: Solid

Analysis Batch: 24343

Client Sample ID: PH09

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	<4.97	U	249	241.6		mg/Kg		96	90 - 110

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QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2204-5 MSD					Client Sample ID: PH09							
Matrix: Solid					Prep Type: Soluble							
Analysis Batch: 24343												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	<4.97	U	249	224.8		mg/Kg	-	90	90 - 110	7	20	

## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## GC VOA

## Prep Batch: 24099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-11	PH14	Total/NA	Solid	5035	
890-2205-12	PH14	Total/NA	Solid	5035	

## Prep Batch: 24100

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-24100/5-A	Method Blank	Total/NA	Solid	5035	

## Prep Batch: 24102

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-1	PH07	Total/NA	Solid	5035	
890-2204-2	PH07	Total/NA	Solid	5035	
890-2204-3	PH08	Total/NA	Solid	5035	
890-2204-4	PH08	Total/NA	Solid	5035	
MB 880-24102/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24102/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24102/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2204-1 MS	PH07	Total/NA	Solid	5035	
890-2204-1 MSD	PH07	Total/NA	Solid	5035	

## Analysis Batch: 24112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-1	PH07	Total/NA	Solid	8021B	24102
890-2204-2	PH07	Total/NA	Solid	8021B	24102
890-2204-3	PH08	Total/NA	Solid	8021B	24102
890-2204-4	PH08	Total/NA	Solid	8021B	24102
MB 880-24100/5-A	Method Blank	Total/NA	Solid	8021B	24100
MB 880-24102/5-A	Method Blank	Total/NA	Solid	8021B	24102
LCS 880-24102/1-A	Lab Control Sample	Total/NA	Solid	8021B	24102
LCSD 880-24102/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24102
890-2204-1 MS	PH07	Total/NA	Solid	8021B	24102
890-2204-1 MSD	PH07	Total/NA	Solid	8021B	24102

## Analysis Batch: 24248

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-1	PH07	Total/NA	Solid	Total BTEX	
890-2204-2	PH07	Total/NA	Solid	Total BTEX	
890-2204-3	PH08	Total/NA	Solid	Total BTEX	
890-2204-4	PH08	Total/NA	Solid	Total BTEX	
890-2204-5	PH09	Total/NA	Solid	Total BTEX	
890-2204-6	PH09	Total/NA	Solid	Total BTEX	
890-2204-7	PH10	Total/NA	Solid	Total BTEX	
890-2204-8	PH10	Total/NA	Solid	Total BTEX	
890-2204-9	PH13	Total/NA	Solid	Total BTEX	
890-2204-10	PH13	Total/NA	Solid	Total BTEX	

## Prep Batch: 24266

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-5	PH09	Total/NA	Solid	5035	
MB 880-24266/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24266/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24266/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## GC VOA (Continued)

## Prep Batch: 24266 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
880-14226-A-1-A MS	Matrix Spike	Total/NA	Solid	5035	
880-14226-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 24304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-11	PH14	Total/NA	Solid	8021B	24099
890-2205-12	PH14	Total/NA	Solid	8021B	24099

## Analysis Batch: 24426

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-11	PH14	Total/NA	Solid	Total BTEX	
890-2205-12	PH14	Total/NA	Solid	Total BTEX	

## Analysis Batch: 24447

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-5	PH09	Total/NA	Solid	8021B	24266
MB 880-24266/5-A	Method Blank	Total/NA	Solid	8021B	24266
LCS 880-24266/1-A	Lab Control Sample	Total/NA	Solid	8021B	24266
LCSD 880-24266/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24266
880-14226-A-1-A MS	Matrix Spike	Total/NA	Solid	8021B	24266
880-14226-A-1-B MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24266

## Analysis Batch: 24450

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-6	PH09	Total/NA	Solid	8021B	24473
890-2204-7	PH10	Total/NA	Solid	8021B	24473
890-2204-8	PH10	Total/NA	Solid	8021B	24473
890-2204-9	PH13	Total/NA	Solid	8021B	24473
890-2204-10	PH13	Total/NA	Solid	8021B	24473
MB 880-24473/5-A	Method Blank	Total/NA	Solid	8021B	24473
LCS 880-24473/1-A	Lab Control Sample	Total/NA	Solid	8021B	24473
LCSD 880-24473/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	24473
880-14236-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	24473
880-14236-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	24473

## Prep Batch: 24473

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-6	PH09	Total/NA	Solid	5035	
890-2204-7	PH10	Total/NA	Solid	5035	
890-2204-8	PH10	Total/NA	Solid	5035	
890-2204-9	PH13	Total/NA	Solid	5035	
890-2204-10	PH13	Total/NA	Solid	5035	
MB 880-24473/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-24473/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-24473/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
880-14236-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
880-14236-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## GC Semi VOA

## Analysis Batch: 23813

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-1	PH07	Total/NA	Solid	8015B NM	23828
890-2204-2	PH07	Total/NA	Solid	8015B NM	23828
890-2204-3	PH08	Total/NA	Solid	8015B NM	23828
890-2204-4	PH08	Total/NA	Solid	8015B NM	23828
890-2204-5	PH09	Total/NA	Solid	8015B NM	23828
890-2204-6	PH09	Total/NA	Solid	8015B NM	23828
890-2204-7	PH10	Total/NA	Solid	8015B NM	23828
890-2204-8	PH10	Total/NA	Solid	8015B NM	23828
890-2204-9	PH13	Total/NA	Solid	8015B NM	23828
890-2204-10	PH13	Total/NA	Solid	8015B NM	23828
MB 880-23828/1-A	Method Blank	Total/NA	Solid	8015B NM	23828
LCS 880-23828/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	23828
LCSD 880-23828/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	23828
890-2202-A-1-B MS	Matrix Spike	Total/NA	Solid	8015B NM	23828
890-2202-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	23828

## Analysis Batch: 23817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-11	PH14	Total/NA	Solid	8015B NM	23857
890-2205-12	PH14	Total/NA	Solid	8015B NM	23857

## Prep Batch: 23828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-1	PH07	Total/NA	Solid	8015NM Prep	
890-2204-2	PH07	Total/NA	Solid	8015NM Prep	
890-2204-3	PH08	Total/NA	Solid	8015NM Prep	
890-2204-4	PH08	Total/NA	Solid	8015NM Prep	
890-2204-5	PH09	Total/NA	Solid	8015NM Prep	
890-2204-6	PH09	Total/NA	Solid	8015NM Prep	
890-2204-7	PH10	Total/NA	Solid	8015NM Prep	
890-2204-8	PH10	Total/NA	Solid	8015NM Prep	
890-2204-9	PH13	Total/NA	Solid	8015NM Prep	
890-2204-10	PH13	Total/NA	Solid	8015NM Prep	
MB 880-23828/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-23828/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-23828/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2202-A-1-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2202-A-1-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Prep Batch: 23857

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-11	PH14	Total/NA	Solid	8015NM Prep	
890-2205-12	PH14	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 23902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-11	PH14	Total/NA	Solid	8015 NM	
890-2205-12	PH14	Total/NA	Solid	8015 NM	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

## GC Semi VOA

## Analysis Batch: 23931

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-1	PH07	Total/NA	Solid	8015 NM	
890-2204-2	PH07	Total/NA	Solid	8015 NM	
890-2204-3	PH08	Total/NA	Solid	8015 NM	
890-2204-4	PH08	Total/NA	Solid	8015 NM	
890-2204-5	PH09	Total/NA	Solid	8015 NM	
890-2204-6	PH09	Total/NA	Solid	8015 NM	
890-2204-7	PH10	Total/NA	Solid	8015 NM	
890-2204-8	PH10	Total/NA	Solid	8015 NM	
890-2204-9	PH13	Total/NA	Solid	8015 NM	
890-2204-10	PH13	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 23841

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-1	PH07	Soluble	Solid	DI Leach	
890-2204-2	PH07	Soluble	Solid	DI Leach	
890-2204-3	PH08	Soluble	Solid	DI Leach	
890-2204-4	PH08	Soluble	Solid	DI Leach	
890-2204-5	PH09	Soluble	Solid	DI Leach	
890-2204-6	PH09	Soluble	Solid	DI Leach	
890-2204-7	PH10	Soluble	Solid	DI Leach	
890-2204-8	PH10	Soluble	Solid	DI Leach	
890-2204-9	PH13	Soluble	Solid	DI Leach	
890-2204-10	PH13	Soluble	Solid	DI Leach	
MB 880-23841/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-23841/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-23841/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-2204-5 MS	PH09	Soluble	Solid	DI Leach	
890-2204-5 MSD	PH09	Soluble	Solid	DI Leach	

## Leach Batch: 23842

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-11	PH14	Soluble	Solid	DI Leach	
890-2205-12	PH14	Soluble	Solid	DI Leach	

## Analysis Batch: 24343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-1	PH07	Soluble	Solid	300.0	23841
890-2204-2	PH07	Soluble	Solid	300.0	23841
890-2204-3	PH08	Soluble	Solid	300.0	23841
890-2204-4	PH08	Soluble	Solid	300.0	23841
890-2204-5	PH09	Soluble	Solid	300.0	23841
890-2204-6	PH09	Soluble	Solid	300.0	23841
890-2204-7	PH10	Soluble	Solid	300.0	23841
890-2204-8	PH10	Soluble	Solid	300.0	23841
890-2204-9	PH13	Soluble	Solid	300.0	23841
890-2204-10	PH13	Soluble	Solid	300.0	23841
MB 880-23841/1-A	Method Blank	Soluble	Solid	300.0	23841
LCS 880-23841/2-A	Lab Control Sample	Soluble	Solid	300.0	23841
LCSD 880-23841/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	23841

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QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

HPLC/IC (Continued)

Analysis Batch: 24343 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2204-5 MS	PH09	Soluble	Solid	300.0	23841
890-2204-5 MSD	PH09	Soluble	Solid	300.0	23841

Analysis Batch: 24345

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2205-11	PH14	Soluble	Solid	300.0	23842
890-2205-12	PH14	Soluble	Solid	300.0	23842

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Client Sample ID: PH07

Lab Sample ID: 890-2204-1

Date Collected: 04/18/22 12:55

Matrix: Solid

Date Received: 04/19/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24102	04/23/22 13:41	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24112	04/25/22 18:56	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/20/22 23:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 00:17	CH	XEN MID

Client Sample ID: PH07

Lab Sample ID: 890-2204-2

Date Collected: 04/18/22 13:00

Matrix: Solid

Date Received: 04/19/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24102	04/23/22 13:41	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24112	04/25/22 19:23	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/20/22 23:42	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 00:23	CH	XEN MID

Client Sample ID: PH08

Lab Sample ID: 890-2204-3

Date Collected: 04/18/22 13:05

Matrix: Solid

Date Received: 04/19/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24102	04/23/22 13:41	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24112	04/25/22 19:50	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 00:02	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 00:29	CH	XEN MID

Client Sample ID: PH08

Lab Sample ID: 890-2204-4

Date Collected: 04/18/22 13:10

Matrix: Solid

Date Received: 04/19/22 13:33

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24102	04/23/22 13:41	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24112	04/25/22 20:17	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

**Client Sample ID: PH08****Date Collected: 04/18/22 13:10****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2204-4****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 00:23	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 00:36	CH	XEN MID

**Client Sample ID: PH09****Date Collected: 04/18/22 13:20****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2204-5****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.96 g	5 mL	24266	04/26/22 15:48	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24447	04/29/22 02:22	AJ	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 00:43	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 00:42	CH	XEN MID

**Client Sample ID: PH09****Date Collected: 04/18/22 13:25****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2204-6****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 17:19	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 01:25	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 01:01	CH	XEN MID

**Client Sample ID: PH10****Date Collected: 04/18/22 13:35****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2204-7****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.00 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 17:40	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 01:45	AJ	XEN MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

**Client Sample ID: PH10****Date Collected: 04/18/22 13:35****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2204-7****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			5.01 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 01:07	CH	XEN MID

**Client Sample ID: PH10****Date Collected: 04/18/22 13:40****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2204-8****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 18:00	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 02:06	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 01:27	CH	XEN MID

**Client Sample ID: PH13****Date Collected: 04/19/22 08:55****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2204-9****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 18:20	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 02:26	AJ	XEN MID
Soluble	Leach	DI Leach			4.99 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 01:33	CH	XEN MID

**Client Sample ID: PH13****Date Collected: 04/19/22 09:00****Date Received: 04/19/22 13:33****Lab Sample ID: 890-2204-10****Matrix: Solid**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	24473	04/29/22 09:06	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24450	04/29/22 18:41	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24248	04/26/22 10:02	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23931	04/21/22 10:45	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	23828	04/20/22 11:30	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23813	04/21/22 02:47	AJ	XEN MID
Soluble	Leach	DI Leach			5 g	50 mL	23841	04/20/22 12:40	SC	XEN MID
Soluble	Analysis	300.0		1			24343	04/28/22 01:39	CH	XEN MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

**Client Sample ID: PH14****Lab Sample ID: 890-2205-11****Date Collected: 04/19/22 08:25****Matrix: Solid****Date Received: 04/19/22 13:33**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	24099	04/23/22 12:31	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24304	04/27/22 20:01	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 02:40	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 08:18	CH	XEN MID

**Client Sample ID: PH14****Lab Sample ID: 890-2205-12****Date Collected: 04/19/22 08:30****Matrix: Solid****Date Received: 04/19/22 13:33**

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	24099	04/23/22 12:31	MR	XEN MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	24304	04/27/22 20:21	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			24426	04/28/22 11:55	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			23902	04/21/22 09:38	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	23857	04/20/22 15:27	DM	XEN MID
Total/NA	Analysis	8015B NM		1			23817	04/21/22 03:01	AJ	XEN MID
Soluble	Leach	DI Leach			4.97 g	50 mL	23842	04/20/22 12:42	SC	XEN MID
Soluble	Analysis	300.0		1			24345	04/28/22 08:25	CH	XEN MID

**Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

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Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

## Method Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

### Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

### Laboratory References:

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Sample Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-2204-1  
SDG: 03A198701

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2204-1	PH07	Solid	04/18/22 12:55	04/19/22 13:33	0.5
890-2204-2	PH07	Solid	04/18/22 13:00	04/19/22 13:33	1
890-2204-3	PH08	Solid	04/18/22 13:05	04/19/22 13:33	0.5
890-2204-4	PH08	Solid	04/18/22 13:10	04/19/22 13:33	1
890-2204-5	PH09	Solid	04/18/22 13:20	04/19/22 13:33	0.5
890-2204-6	PH09	Solid	04/18/22 13:25	04/19/22 13:33	1
890-2204-7	PH10	Solid	04/18/22 13:35	04/19/22 13:33	0.5
890-2204-8	PH10	Solid	04/18/22 13:40	04/19/22 13:33	1
890-2204-9	PH13	Solid	04/19/22 08:55	04/19/22 13:33	0.5
890-2204-10	PH13	Solid	04/19/22 09:00	04/19/22 13:33	1
890-2205-11	PH14	Solid	04/19/22 08:25	04/19/22 13:33	0.5
890-2205-12	PH14	Solid	04/19/22 08:30	04/19/22 13:33	1



**Environment Testing**  
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1206  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 986-3199

### Chain of Custody

Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 2

Project Manager:	Ben Bell	Bill to: (if different)	Jim Riley
Company Name:	Ensolum LLC	Company Name:	Devon Energy Corporation
Address:	331 W Northwest Hwy Suite 1203A	Address:	5315 Buena Vista Dr
City/State/Zip:	Ball Lake, TX, 75820	City/State/Zip:	Carlsbad NM, 88320
Phone:	807-969-854-0552	Email:	Jim.Riley@devn.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PPP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDO <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____

Project Name:	PLCS Fed 1 Y	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03A1787014	Due Date:			
Project Location:	CL: 1041084703	TAT starts the day received by the lab. If received by 4:30pm			
Sampler's Name:	Co Hux Shore	Wet/Dry:	<input checked="" type="checkbox"/> Wet <input type="checkbox"/> Dry		
P.O. #:		Thermometer ID:	7MM-007		
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Correction Factor:	70.2		
Samples Received intact:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	Temperature Reading:	36.3		
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Corrected Temperature:	3.0		
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A				
Total Containers:					



890-2204 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont	Parameters	ANALYSIS REQUEST	Preservative Codes	Sample Comments
PH07	S	04/16/23	12:55	0.5'	G	1	X	X	X	
PH07				1.1'						
PH07				1.305						
PH08				1.1'						
PH09				1.330						
PH09				1.345						
PH10				1.335						
PH10				1.340						
PH13				0.51						
PH13				0.51						
PH13				1.00						

Total 2002/6010 2008/6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SIO<sub>2</sub> Na Sr Ti Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed TCEP / SPLP 6010 : 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

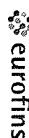
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
		4-19-22 1333			

Revised Date: 05/10/2020 Rev. 2020.2

Eurofins Carlsbad

1089 N Canal St.  
Carlsbad NM 88220  
Phone 575-988-3199 Fax 575-988-3199

## Chain of Custody Record



## Environment Testing America

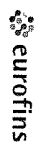
<b>Client Information (Sub Contract Lab)</b>				Sampler	Lab PM	Carrier Tracking No(s)	COC No										
Client Contact: <b>Shipping/Receiving</b>				Phone	Kramer Jessica		890-713 1										
Company: Eurofins Environment Testing South Central				E-Mail: Jessica.Kramer@eurofins.com	Accreditations Required (See note): NELAP - Texas	State of Origin: New Mexico	Page 1 of 2										
Address: 1211 W. Florida Ave				Due Date Requested: 4/25/2022	Analysis Requested			Job # 890-2204-1									
City: Midland				TAT Requested (days):				Preservation Codes									
State Zip: TX, 79701								A. HCL B. NaOH C. Zn Acetate D. Nitric Acid E. NaHSO4 F. MeOH G. Amchlor H. Ascorbic Acid I. Ice J. DI Water K. EDTA L. EDA Other: _____									
Phone: 432-704-5440(Tel)				PO #:				M. Hexane N. None O. AsNaO2 P. Na2O4S Q. Na2SO3 R. Na2S2O3 S. H2SO4 T. TSP Dodecylaldehyde U. Acetone V. MCAA W. pH 4.5 Z. other (specify)									
Email: _____				WO #:													
Project Name: PECOS FED 1X				Project #: 89000084													
Site: _____				SSOW#:													
<b>Sample Identification - Client ID (Lab ID)</b>				<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (G=grab, B=T-Tissue, A=Air)</b>	<b>Matrix (W=water, S=solid, O=overhead)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>8016MOD_Calc</b>	<b>8016MOD_NM/8016NM_S_Prep Full TPH</b>	<b>300_ORGFM_28D/DI_LEACH Chloride</b>	<b>8021B/6036FP_Calc BTEX</b>	<b>Total_BTEX_GCV</b>	<b>Total Number of containers</b>	<b>Special Instructions/Note:</b>	
PH07 (890-2204-1)				4/18/22	12 55	Mountain	Solid		X	X	X	X	X			1	
PH07 (890-2204-2)				4/18/22	13 00	Mountain	Solid		X	X	X	X	X			1	
PH08 (890-2204-3)				4/18/22	13 05	Mountain	Solid		X	X	X	X	X			1	
PH08 (890-2204-4)				4/18/22	13 10	Mountain	Solid		X	X	X	X	X			1	
PH09 (890-2204-6)				4/18/22	13 20	Mountain	Solid		X	X	X	X	X			1	
PH09 (890-2204-6)				4/18/22	13 25	Mountain	Solid		X	X	X	X	X			1	
PH10 (890-2204-7)				4/18/22	13 35	Mountain	Solid		X	X	X	X	X			1	
PH10 (890-2204-8)				4/18/22	13 40	Mountain	Solid		X	X	X	X	X			1	
PH13 (890-2204-9)				4/19/22	08 55	Mountain	Solid		X	X	X	X	X			1	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte &amp; accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis, the sample must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.</p>																	
<b>Possible Hazard Identification</b>																	
Unconfirmed																	
Deliverable Requested I II III IV Other (Specify) Primary Deliverable Rank 2																	
Empty Kit Relinquished by _____ Date _____ Time _____ Method of Shipment _____																	
Relinquished by _____ Date/Time _____ Company _____ Received by _____ Date/Time _____ Company _____																	
Relinquished by _____ Date/Time _____ Company _____ Received by _____ Date/Time _____ Company _____																	
Custody Seals Intact: _____ Custody Seal No _____ Cooler Temperature(s) °C and Other Remarks _____																	
Δ Yes Δ No																	



Eurofins Carlsbad

1089 N Canal St  
Carlsbad NM 88220  
Phone 575-988-3199 Fax. 575-988-3199

## Chain of Custody Record



**Environment Testing  
America**

[illegible]

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2204-1

SDG Number: 03A198701

Login Number: 2204

List Number: 1

Creator: Clifton, Cloe

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2204-1

SDG Number: 03A198701

**Login Number: 2204****List Number: 2****Creator: Teel, Brianna****List Source: Eurofins Midland****List Creation: 04/20/22 10:37 AM**

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



## Environment Testing America

### ANALYTICAL REPORT

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad, NM 88220  
Tel: (575)988-3199

Laboratory Job ID: 890-2323-2

Laboratory Sample Delivery Group: 03A1987014

Client Project/Site: Pecos Federal #001Y

**For:**

Ensolum  
705 W. Wadley  
Suite 210  
Midland, Texas 79701

Attn: Joseph Hernandez

Authorized for release by:

5/24/2022 7:53:08 AM

Jessica Kramer, Project Manager  
(432)704-5440

[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)

#### LINKS

Review your project  
results through



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[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Laboratory Job ID: 890-2323-2  
SDG: 03A1987014

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count



Case Narrative

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

Job ID: 890-2323-2

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-2323-2
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Receipt

The samples were received on 5/19/2022 4:11 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 880-26028 and analytical batch 880-26024 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

Client Sample ID: PH12

Lab Sample ID: 890-2323-7

Date Collected: 05/18/22 12:15

Matrix: Solid

Date Received: 05/19/22 16:11

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 13:22	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 13:22	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 13:22	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/23/22 11:13	05/23/22 13:22	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 13:22	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/23/22 11:13	05/23/22 13:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130	05/23/22 11:13	05/23/22 13:22	1
1,4-Difluorobenzene (Surr)	96		70 - 130	05/23/22 11:13	05/23/22 13:22	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			05/23/22 17:01	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/24/22 08:44	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		05/23/22 08:23	05/23/22 14:24	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/23/22 08:23	05/23/22 14:24	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/23/22 08:23	05/23/22 14:24	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	98		70 - 130	05/23/22 08:23	05/23/22 14:24	1
o-Terphenyl	107		70 - 130	05/23/22 08:23	05/23/22 14:24	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	382		5.05		mg/Kg			05/23/22 13:35	1

Eurofins Carlsbad

## Surrogate Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2323-7	PH12	110	96
890-2323-A-1-E MS	Matrix Spike	118	91
890-2323-A-1-F MSD	Matrix Spike Duplicate	110	95
LCS 880-26086/1-A	Lab Control Sample	108	92
LCSD 880-26086/2-A	Lab Control Sample Dup	113	90
MB 880-26086/5-A	Method Blank	107	89
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2323-7	PH12	98	107
890-2323-A-2-B MS	Matrix Spike	101	102
890-2323-A-2-C MSD	Matrix Spike Duplicate	93	93
LCS 880-26028/2-A	Lab Control Sample	103	107
LCSD 880-26028/3-A	Lab Control Sample Dup	109	113
MB 880-26028/1-A	Method Blank	107	122
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26086/5-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26086

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/23/22 11:13	05/23/22 12:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	05/23/22 11:13	05/23/22 12:40	1
1,4-Difluorobenzene (Surr)	89		70 - 130	05/23/22 11:13	05/23/22 12:40	1

Lab Sample ID: LCS 880-26086/1-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07806		mg/Kg		78	70 - 130
Toluene	0.100	0.09288		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09738		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2011		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-26086/2-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07770		mg/Kg		78	70 - 130	0	35
Toluene	0.100	0.09565		mg/Kg		96	70 - 130	3	35
Ethylbenzene	0.100	0.1006		mg/Kg		101	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2095		mg/Kg		105	70 - 130	4	35
o-Xylene	0.100	0.1055		mg/Kg		105	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 890-2323-A-1-E MS

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.07463		mg/Kg		74	70 - 130
Toluene	<0.00201	U	0.101	0.08606		mg/Kg		85	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2323-A-1-E MS

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.08076		mg/Kg		80	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1659		mg/Kg		82	70 - 130
o-Xylene	<0.00201	U	0.101	0.08089		mg/Kg		80	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 890-2323-A-1-F MSD

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.07739		mg/Kg		78	70 - 130	4	35
Toluene	<0.00201	U	0.0990	0.08395		mg/Kg		85	70 - 130	2	35
Ethylbenzene	<0.00201	U	0.0990	0.07464		mg/Kg		75	70 - 130	8	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1500		mg/Kg		76	70 - 130	10	35
o-Xylene	<0.00201	U	0.0990	0.07520		mg/Kg		76	70 - 130	7	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-26028/1-A

Matrix: Solid

Analysis Batch: 26024

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26028

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/23/22 08:23	05/23/22 09:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:23	05/23/22 09:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/23/22 08:23	05/23/22 09:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	05/23/22 08:23	05/23/22 09:53	1
o-Terphenyl	122		70 - 130	05/23/22 08:23	05/23/22 09:53	1

Lab Sample ID: LCS 880-26028/2-A

Matrix: Solid

Analysis Batch: 26024

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26028

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	888.2		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	1000	800.7		mg/Kg		80	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-26028/2-A  
Matrix: Solid  
Analysis Batch: 26024

Client Sample ID: Lab Control Sample  
Prep Type: Total/NA  
Prep Batch: 26028

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-26028/3-A  
Matrix: Solid  
Analysis Batch: 26024

Client Sample ID: Lab Control Sample Dup  
Prep Type: Total/NA  
Prep Batch: 26028

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	908.6		mg/Kg		91	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	914.8		mg/Kg		91	70 - 130	13	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 890-2323-A-2-B MS  
Matrix: Solid  
Analysis Batch: 26024

Client Sample ID: Matrix Spike  
Prep Type: Total/NA  
Prep Batch: 26028

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	1000	1466	F1	mg/Kg		144	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	948.2		mg/Kg		95	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 890-2323-A-2-C MSD  
Matrix: Solid  
Analysis Batch: 26024

Client Sample ID: Matrix Spike Duplicate  
Prep Type: Total/NA  
Prep Batch: 26028

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	999	1176	F2	mg/Kg		116	70 - 130	22	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	871.0		mg/Kg		87	70 - 130	8	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	93		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26083/1-A

Matrix: Solid

Analysis Batch: 26099

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/23/22 13:07	1

Lab Sample ID: LCS 880-26083/2-A

Matrix: Solid

Analysis Batch: 26099

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	236.5		mg/Kg		95	90 - 110

Lab Sample ID: LCSD 880-26083/3-A

Matrix: Solid

Analysis Batch: 26099

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	236.2		mg/Kg		94	90 - 110	0	20

Lab Sample ID: 890-2323-7 MS

Matrix: Solid

Analysis Batch: 26099

Client Sample ID: PH12

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	382		253	634.6		mg/Kg		100	90 - 110

Lab Sample ID: 890-2323-7 MSD

Matrix: Solid

Analysis Batch: 26099

Client Sample ID: PH12

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	382		253	614.2		mg/Kg		92	90 - 110	3	20

Eurofins Carlsbad

## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

## GC VOA

## Analysis Batch: 26017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7	PH12	Total/NA	Solid	8021B	26086
MB 880-26086/5-A	Method Blank	Total/NA	Solid	8021B	26086
LCS 880-26086/1-A	Lab Control Sample	Total/NA	Solid	8021B	26086
LCSD 880-26086/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26086
890-2323-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	26086
890-2323-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	26086

## Prep Batch: 26086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7	PH12	Total/NA	Solid	5035	
MB 880-26086/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26086/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26086/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2323-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2323-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 26110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7	PH12	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 26024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7	PH12	Total/NA	Solid	8015B NM	26028
MB 880-26028/1-A	Method Blank	Total/NA	Solid	8015B NM	26028
LCS 880-26028/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26028
LCSD 880-26028/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26028
890-2323-A-2-B MS	Matrix Spike	Total/NA	Solid	8015B NM	26028
890-2323-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26028

## Prep Batch: 26028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7	PH12	Total/NA	Solid	8015NM Prep	
MB 880-26028/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26028/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26028/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2323-A-2-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2323-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 26126

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7	PH12	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 26083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7	PH12	Soluble	Solid	DI Leach	
MB 880-26083/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26083/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26083/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

Eurofins Carlsbad

QC Association Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

HPLC/IC (Continued)

Leach Batch: 26083 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7 MS	PH12	Soluble	Solid	DI Leach	
890-2323-7 MSD	PH12	Soluble	Solid	DI Leach	

Analysis Batch: 26099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-7	PH12	Soluble	Solid	300.0	26083
MB 880-26083/1-A	Method Blank	Soluble	Solid	300.0	26083
LCS 880-26083/2-A	Lab Control Sample	Soluble	Solid	300.0	26083
LCSD 880-26083/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26083
890-2323-7 MS	PH12	Soluble	Solid	300.0	26083
890-2323-7 MSD	PH12	Soluble	Solid	300.0	26083

Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

Client Sample ID: PH12  
Date Collected: 05/18/22 12:15  
Date Received: 05/19/22 16:11

Lab Sample ID: 890-2323-7  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	26086	05/23/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26017	05/23/22 13:22	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26110	05/23/22 17:01	AJ	XEN MID
Total/NA	Analysis	8015 NM		1			26126	05/24/22 08:44	AJ	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	26028	05/23/22 08:23	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26024	05/23/22 14:24	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	26083	05/23/22 10:58	SC	XEN MID
Soluble	Analysis	300.0		1			26099	05/23/22 13:35	CH	XEN MID

Laboratory References:  
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14

Method Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Sample Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2323-2  
SDG: 03A1987014

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2323-7	PH12	Solid	05/18/22 12:15	05/19/22 16:11	1

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14



Environment Testing  
Xenco

Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: \_\_\_\_\_

www.xenco.com Page \_\_\_\_\_ of \_\_\_\_\_

Project Manager:	Ben Bellil	Bill to: (if different)	Jim Raley
Company Name:	Ensolum, LLC	Company Name:	Devon Energy Corporation
Address:	3122 National Parks Hwy	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852	Email:	jim.raley@dvn.com, bbellil@ensolum.com

Program: <input type="checkbox"/> UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project: _____	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other: _____	

Project Name:	Pecos Federal #001Y	Turn Around	<input checked="" type="checkbox"/> Routine <input type="checkbox"/> Rush	Pres. Code	
Project Number:	03A1987014	Due Date:	5 Day TAT		
Project Location:	Rural Eddy	TAT starts the day received by the lab, if received by 4:30pm			
Sampler's Name:	Gilbert Moreno				
PO #:	CC: 1061489801 06/08/20				
SAMPLE RECEIPT	Temp Blank: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Wet Ice: <input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Parameters		
Samples Received In tact:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Thermometer ID:	-0.2		
Cooler Custody Seals:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Correction Factor:	-0.2		
Sample Custody Seals:	<input checked="" type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Temperature Reading:	1.0		
Total Containers:		Corrected Temperature:	0.8		



890-2323 Chain of Custody

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp Cont	# of	BTEX - EPA METHOD 8021B	TPH - EPA METHOD 8015M/D	CHLORIDE - EPA METHOD 300.0	ANALYSIS REQUEST	Preservative Codes	Sample Comments
PH01	S	5/18/22	10:55	4'	Comp	1	X	X	X		None: NO DI Water: H <sub>2</sub> O	Incident ID
PH01	S	5/18/22	11:00	7'	Comp	1	X	X	X		Cool: Cool MeOH: Me	
PH02	S	5/18/22	14:00	6'	Comp	1	X	X	X		HCL: HC HNO <sub>3</sub> : HN	nAPP220846424
PH02	S	5/18/22	14:05	7'	Comp	1	X	X	X		H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub> NaOH: Na	
PH11	S	5/18/22	11:05	0.5'	Comp	1	X	X	X		H <sub>3</sub> PO <sub>4</sub> : HP	
PH11	S	5/18/22	11:10	7'	Comp	1	X	X	X		NaHSO <sub>4</sub> : NABIS	PH 12 (11)
PH12	S	5/18/22	12:15	1'	Comp	1	X	X	X		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>	*BUSH 24 HR *
PH12	S	5/18/22	12:20	7'	Comp	1	X	X	X		Zn Acetate+NaOH: Zn	
PH13	S	5/18/22	12:30	2'	Comp	1	X	X	X		NaOH+Ascorbic Acid: SAPC	
PH13	S	5/18/22	12:35	7'	Comp	1	X	X	X			

Total 200.7 / 6010 200.8 / 6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO<sub>2</sub> Na Sr Ti Sn U V Zn  
Circle Method(s) and Metal(s) to be analyzed TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 <i>C. Moreno</i>	2 <i>B. Bellil</i>	5/19/22 4:11	3 <i>C. Moreno</i>	4 <i>B. Bellil</i>	
5			6		

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## Eurofins Carlsbad

1089 N Canal St.  
Carlsbad, NM 88220  
Phone: 575-988-3199 Fax: 575-988-3199

## Chain of Custody Record



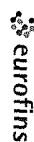
Environment Testing  
America

<b>Client Information (Sub Contract Lab)</b>		Sampler	Lab PM	Carrier Tracking No(s)	COC No:									
Client Contact:	Phone	Kramer, Jessica	State of Origin:	890-764 1	Page: 1 of 1									
Shipping/Receiving	E-Mail	Jessica.Kramer@eurofins.com	New Mexico											
Company	Accreditations Required (See note):	NELAP - Texas	Job #	890-2323-1										
Eurofins Environment Testing South Cent														
Address	Due Date Requested		<b>Analysis Requested</b>											
1211 W Florida Ave	5/25/2022													
City	TAT Requested (days)													
Midland														
State Zip														
TX, 79701														
Phone	PO #													
432-704-5440(Tel)														
Email	WO #													
Project Name:	Project #													
Pecos Federal #001Y	89000084													
Site	SSOW#													
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=comp, G=grab)</b>	<b>Matrix (W=water, S=solid, O=wastewater, B=tissue, A=air)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>	<b>8015MOD_Calc</b>	<b>8015MOD_NM/8015NM_S_Prep Full TPH</b>	<b>300_ORGFM_28D/DI_LEACH Chloride</b>	<b>8021B/6036FP_Calc BTEX</b>	<b>Total_BTEX_GCV</b>	<b>Total Number of containers</b>	<b>Special Instructions/Note.</b>
PH01 (890-2323-1)	5/18/22	10 55	Mountain	Solid		X	X	X	X	X	X	1		
PH01 (890-2323-2)	5/18/22	11 00	Mountain	Solid		X	X	X	X	X	X	1		
PH02 (890-2323-3)	5/18/22	14 00	Mountain	Solid		X	X	X	X	X	X	1		
PH02 (890-2323-4)	5/18/22	14 05	Mountain	Solid		X	X	X	X	X	X	1		
PH11 (890-2323-5)	5/18/22	11 05	Mountain	Solid		X	X	X	X	X	X	1		
PH11 (890-2323-6)	5/18/22	11 10	Mountain	Solid		X	X	X	X	X	X	1		
PH12 (890-2323-8)	5/18/22	12 20	Mountain	Solid		X	X	X	X	X	X	1		
PH13 (890-2323-9)	5/18/22	12 30	Mountain	Solid		X	X	X	X	X	X	1		
PH13 (890-2323-10)	5/18/22	12 35	Mountain	Solid		X	X	X	X	X	X	1		
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central LLC places the ownership of method, analyte &amp; accreditation compliance upon our subcontracted laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to Eurofins Environment Testing South Central, LLC.</p>														
<b>Possible Hazard Identification</b>														
<b>Unconfirmed</b>														
Deliverable Requested I, II, III, IV Other (specify) _____														
Primary Deliverable Rank: 2														
Special Instructions/QC Requirements:														
<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months														
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b>														
Empty Kit Relinquished by: _____														
Relinquished by: <i>NOivas 5-25-22</i> Date/Time: _____ Company: _____														
Relinquished by: _____ Date/Time: _____ Company: _____														
Relinquished by: _____ Date/Time: _____ Company: _____														
Custody Seals Intact: _____ Custody Seal No: _____														
Cooler Temperature(s) °C and Other Remarks: <i>21/19</i>														

## Eurofins Carlsbad

1089 N Canal St  
Carlsbad NM 88220  
Phone 575-988-3199 Fax 575-988-3199

## Chain of Custody Record



## Environment Testing America

[illegible]

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2323-2

SDG Number: 03A1987014

Login Number: 2323

List Number: 1

Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2323-2

SDG Number: 03A1987014

Login Number: 2323

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 05/23/22 08:18 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1/1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



## Environment Testing America

### ANALYTICAL REPORT

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad, NM 88220  
Tel: (575)988-3199

Laboratory Job ID: 890-2324-1

Laboratory Sample Delivery Group: 03A1987014

Client Project/Site: Pecos Federal #001Y

**For:**

Ensolum  
705 W. Wadley  
Suite 210  
Midland, Texas 79701

Attn: Ben Belill

A handwritten signature in black ink that reads "Jessica Kramer".

Authorized for release by:

5/25/2022 10:48:18 AM

Jessica Kramer, Project Manager  
(432)704-5440

[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)

#### LINKS

Review your project  
results through



Have a Question?



Visit us at:

[www.eurofinsus.com/Env](http://www.eurofinsus.com/Env)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



Client: Ensolum  
Project/Site: Pecos Federal #001Y

Laboratory Job ID: 890-2324-1  
SDG: 03A1987014

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

Job ID: 890-2324-1

Laboratory: Eurofins Carlsbad

Narrative

Job Narrative  
890-2324-1

Receipt

The sample was received on 5/19/2022 4:11 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

GC VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (890-2327-A-21-A). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-26030 and analytical batch 880-26020 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10. The MS/MSD RPD passes therefore shows recovery for the batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

Client Sample ID: PH12

Lab Sample ID: 890-2324-1

Date Collected: 05/18/22 11:45

Matrix: Solid

Date Received: 05/19/22 16:11

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/23/22 11:13	05/23/22 18:10	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/23/22 11:13	05/23/22 18:10	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/23/22 11:13	05/23/22 18:10	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/23/22 11:13	05/23/22 18:10	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/23/22 11:13	05/23/22 18:10	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/23/22 11:13	05/23/22 18:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130	05/23/22 11:13	05/23/22 18:10	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/23/22 11:13	05/23/22 18:10	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/24/22 11:05	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/24/22 09:49	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		05/23/22 08:26	05/23/22 16:13	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/23/22 08:26	05/23/22 16:13	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/23/22 08:26	05/23/22 16:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	05/23/22 08:26	05/23/22 16:13	1
o-Terphenyl	115		70 - 130	05/23/22 08:26	05/23/22 16:13	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	334		4.99		mg/Kg			05/25/22 07:23	1

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## Surrogate Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2323-A-1-E MS	Matrix Spike	118	91
890-2323-A-1-F MSD	Matrix Spike Duplicate	110	95
890-2324-1	PH12	114	98
LCS 880-26086/1-A	Lab Control Sample	108	92
LCSD 880-26086/2-A	Lab Control Sample Dup	113	90
MB 880-26086/5-A	Method Blank	107	89

## Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

DFBZ = 1,4-Difluorobenzene (Surr)

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

## Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
890-2324-1	PH12	107	115
890-2327-A-21-B MS	Matrix Spike	115	114
890-2327-A-21-C MSD	Matrix Spike Duplicate	103	101
LCS 880-26030/2-A	Lab Control Sample	130	130
LCSD 880-26030/3-A	Lab Control Sample Dup	110	110
MB 880-26030/1-A	Method Blank	107	114

## Surrogate Legend

1CO = 1-Chlorooctane

OTPH = o-Terphenyl

## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26086/5-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26086

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/23/22 11:13	05/23/22 12:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	05/23/22 11:13	05/23/22 12:40	1
1,4-Difluorobenzene (Surr)	89		70 - 130	05/23/22 11:13	05/23/22 12:40	1

Lab Sample ID: LCS 880-26086/1-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07806		mg/Kg		78	70 - 130
Toluene	0.100	0.09288		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09738		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2011		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-26086/2-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07770		mg/Kg		78	70 - 130	0	35
Toluene	0.100	0.09565		mg/Kg		96	70 - 130	3	35
Ethylbenzene	0.100	0.1006		mg/Kg		101	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2095		mg/Kg		105	70 - 130	4	35
o-Xylene	0.100	0.1055		mg/Kg		105	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 890-2323-A-1-E MS

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.07463		mg/Kg		74	70 - 130
Toluene	<0.00201	U	0.101	0.08606		mg/Kg		85	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2323-A-1-E MS

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.08076		mg/Kg		80	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1659		mg/Kg		82	70 - 130
o-Xylene	<0.00201	U	0.101	0.08089		mg/Kg		80	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 890-2323-A-1-F MSD

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.07739		mg/Kg		78	70 - 130	4	35
Toluene	<0.00201	U	0.0990	0.08395		mg/Kg		85	70 - 130	2	35
Ethylbenzene	<0.00201	U	0.0990	0.07464		mg/Kg		75	70 - 130	8	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1500		mg/Kg		76	70 - 130	10	35
o-Xylene	<0.00201	U	0.0990	0.07520		mg/Kg		76	70 - 130	7	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-26030/1-A

Matrix: Solid

Analysis Batch: 26020

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26030

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 10:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 10:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/23/22 08:26	05/23/22 10:03	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	05/23/22 08:26	05/23/22 10:03	1
o-Terphenyl	114		70 - 130	05/23/22 08:26	05/23/22 10:03	1

Lab Sample ID: LCS 880-26030/2-A

Matrix: Solid

Analysis Batch: 26020

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26030

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1073		mg/Kg		107	70 - 130
Diesel Range Organics (Over C10-C28)	1000	1058		mg/Kg		106	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-26030/2-A

Matrix: Solid

Analysis Batch: 26020

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26030

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	130		70 - 130
o-Terphenyl	130		70 - 130

Lab Sample ID: LCSD 880-26030/3-A

Matrix: Solid

Analysis Batch: 26020

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26030

	Spike	LCSD	LCSD						%Rec		RPD	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit			
Gasoline Range Organics (GRO)-C6-C10	1000	844.8	*1	mg/Kg		84	70 - 130	24	20			
Diesel Range Organics (Over C10-C28)	1000	877.5		mg/Kg		88	70 - 130	19	20			

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	110		70 - 130
o-Terphenyl	110		70 - 130

Lab Sample ID: 890-2327-A-21-B MS

Matrix: Solid

Analysis Batch: 26020

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26030

	Sample	Sample	Spike	MS	MS				%Rec			
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	1000	1181		mg/Kg		115	70 - 130			
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	1228		mg/Kg		123	70 - 130			

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	115		70 - 130
o-Terphenyl	114		70 - 130

Lab Sample ID: 890-2327-A-21-C MSD

Matrix: Solid

Analysis Batch: 26020

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 26030

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Gasoline Range Organics (GRO)-C6-C10	<50.0	U *1	999	1023		mg/Kg		100	70 - 130	14	20	
Diesel Range Organics (Over C10-C28)	<50.0	U	999	1081		mg/Kg		108	70 - 130	13	20	

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	101		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26084/1-A

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			05/25/22 04:55	1

Lab Sample ID: LCS 880-26084/2-A

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	247.4		mg/Kg		99	90 - 110

Lab Sample ID: LCSD 880-26084/3-A

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	255.6		mg/Kg		102	90 - 110	3	20

Lab Sample ID: 890-2323-A-1-C MS

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: Matrix Spike

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	233		249	458.2		mg/Kg		91	90 - 110

Lab Sample ID: 890-2323-A-1-D MSD

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: Matrix Spike Duplicate

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	233		249	477.2		mg/Kg		98	90 - 110	4	20

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

## GC VOA

## Analysis Batch: 26017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2324-1	PH12	Total/NA	Solid	8021B	26086
MB 880-26086/5-A	Method Blank	Total/NA	Solid	8021B	26086
LCS 880-26086/1-A	Lab Control Sample	Total/NA	Solid	8021B	26086
LCSD 880-26086/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26086
890-2323-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	26086
890-2323-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	26086

## Prep Batch: 26086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2324-1	PH12	Total/NA	Solid	5035	
MB 880-26086/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26086/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26086/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2323-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2323-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 26171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2324-1	PH12	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 26020

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2324-1	PH12	Total/NA	Solid	8015B NM	26030
MB 880-26030/1-A	Method Blank	Total/NA	Solid	8015B NM	26030
LCS 880-26030/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26030
LCSD 880-26030/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26030
890-2327-A-21-B MS	Matrix Spike	Total/NA	Solid	8015B NM	26030
890-2327-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26030

## Prep Batch: 26030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2324-1	PH12	Total/NA	Solid	8015NM Prep	
MB 880-26030/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26030/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26030/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2327-A-21-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2327-A-21-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 26154

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2324-1	PH12	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 26084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2324-1	PH12	Soluble	Solid	DI Leach	
MB 880-26084/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26084/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26084/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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QC Association Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

HPLC/IC (Continued)

Leach Batch: 26084 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2323-A-1-C MS	Matrix Spike	Soluble	Solid	DI Leach	
890-2323-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	DI Leach	

Analysis Batch: 26199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2324-1	PH12	Soluble	Solid	300.0	26084
MB 880-26084/1-A	Method Blank	Soluble	Solid	300.0	26084
LCS 880-26084/2-A	Lab Control Sample	Soluble	Solid	300.0	26084
LCSD 880-26084/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26084
890-2323-A-1-C MS	Matrix Spike	Soluble	Solid	300.0	26084
890-2323-A-1-D MSD	Matrix Spike Duplicate	Soluble	Solid	300.0	26084

Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

Client Sample ID: PH12  
Date Collected: 05/18/22 11:45  
Date Received: 05/19/22 16:11

Lab Sample ID: 890-2324-1  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	26086	05/23/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26017	05/23/22 18:10	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26171	05/24/22 11:05	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26154	05/24/22 09:49	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26030	05/23/22 08:26	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26020	05/23/22 16:13	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26084	05/23/22 11:02	SC	XEN MID
Soluble	Analysis	300.0		1			26199	05/25/22 07:23	CH	XEN MID

Laboratory References:  
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

Method Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Sample Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2324-1  
SDG: 03A1987014

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2324-1	PH12	Solid	05/18/22 11:45	05/19/22 16:11	0.5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14




Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

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Page 1 of 1



Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

Project Name:	Pecos Federal #001Y	Turn Around	
Project Number:	03A1987014	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush
Project Location:	Rural Eddy	Due Date:	5 Day TAT
Sampler's Name:	Gilbert Moreno	TAT starts the day received by the lab, if received by 4:30pm	
PO #:	CC:10611485601 / ac/cg/r/gc		
SAMPLE RECEIPT	Temp Blank:	(Yes) No	Wet Ice: (Yes) No
Samples Received Intact:	(Yes) No	Thermometer ID:	FH-102
Cooler Custody Seals:	Yes No	Correction Factor:	-0.2
Sample Custody Seals:	Yes No	N/A Temperature Reading:	1.0
Total Containers:		Corrected Temperature:	0.8
Parameters			
EPA METHOD 8021B			
EPA METHOD 8015M/D			
IRIDE - EPA METHOD 300.0			
ANALYSIS REQUEST			
 890-2324 Chain of Custody			
Preservative Codes			
None: NO	DI Water: H <sub>2</sub> O		
Cool: Cool	MeOH: Me		
HCL: HC	HNO <sub>3</sub> : HN		
H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na		
H <sub>3</sub> PO <sub>4</sub> : HP			
NaHSO <sub>4</sub> : NABIS			
Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>			
Zn Acetate+NaOH: Zn			
NaOH+Ascorbic Acid: SACP			

[illegible]

Hg: 1631 / 245.1 / 7470 / 7471

**Notice:** Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expense incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$38.00 will be applied to each project and a charge of \$5.00 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

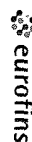
Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1 		8/9/22 4:11	2		
3			4		
5			6		

Revised Date 08/25/2020 Rev 20

## Eurofins Carlsbad

1089 N Canal St.  
Carlsbad, NM 88220  
Phone 575-988-3199 Fax 575-988-3199

## Chain of Custody Record



**Environment Testing  
America**

[illegible]

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2324-1

SDG Number: 03A1987014

Login Number: 2324

List Number: 1

Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2324-1

SDG Number: 03A1987014

Login Number: 2324

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 05/23/22 08:18 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1/1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	





## Environment Testing America

### ANALYTICAL REPORT

Eurofins Carlsbad  
1089 N Canal St.  
Carlsbad, NM 88220  
Tel: (575)988-3199

Laboratory Job ID: 890-2326-1

Laboratory Sample Delivery Group: 03A1987014

Client Project/Site: Pecos Federal #001Y

**For:**

Ensolum  
705 W. Wadley  
Suite 210  
Midland, Texas 79701

Attn: Ben Belill

Authorized for release by:

5/25/2022 10:48:52 AM

Jessica Kramer, Project Manager  
(432)704-5440

[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)

#### LINKS

Review your project  
results through



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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Laboratory Job ID: 890-2326-1  
SDG: 03A1987014

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
*1	LCS/LCSD RPD exceeds control limits.
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

## Case Narrative

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

**Job ID: 890-2326-1****Laboratory: Eurofins Carlsbad****Narrative****Job Narrative  
890-2326-1****Receipt**

The samples were received on 5/19/2022 4:12 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.8°C

**GC VOA**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**GC Semi VOA**

Method 8015MOD\_NM: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26028 and analytical batch 880-26024 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

Method 8015MOD\_NM: Surrogate recovery for the following sample was outside control limits: (LCS 880-26124/2-A). Evidence of matrix interferences is not obvious.

Method 8015MOD\_NM: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 880-26124 and analytical batch 880-26134 recovered outside control limits for the following analytes: Gasoline Range Organics (GRO)-C6-C10 and Diesel Range Organics (Over C10-C28). The MS/MSD RPD passed within limits and therefore shows recovery for the batch.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

**HPLC/IC**

Method 300\_ORGFM\_28D: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for preparation batch 880-26084 and 880-26084 and analytical batch 880-26199 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory sample control duplicate (LCS/LCSD) precision was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

Client Sample ID: PH15

Lab Sample ID: 890-2326-1

Date Collected: 05/18/22 11:15

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 18:31	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 18:31	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 18:31	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/23/22 11:13	05/23/22 18:31	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 18:31	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/23/22 11:13	05/23/22 18:31	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130	05/23/22 11:13	05/23/22 18:31	1
1,4-Difluorobenzene (Surr)	98		70 - 130	05/23/22 11:13	05/23/22 18:31	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/24/22 11:05	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	67.9		50.0		mg/Kg			05/24/22 09:21	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/23/22 08:24	05/23/22 16:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:24	05/23/22 16:59	1
Oil Range Organics (Over C28-C36)	67.9		50.0		mg/Kg		05/23/22 08:24	05/23/22 16:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	05/23/22 08:24	05/23/22 16:59	1
o-Terphenyl	110		70 - 130	05/23/22 08:24	05/23/22 16:59	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8780	F1	101		mg/Kg			05/25/22 07:32	20

Client Sample ID: PH15

Lab Sample ID: 890-2326-2

Date Collected: 05/18/22 11:20

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 18:51	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 18:51	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 18:51	1
m-Xylene & p-Xylene	<0.00396	U	0.00396		mg/Kg		05/23/22 11:13	05/23/22 18:51	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 18:51	1
Xylenes, Total	<0.00396	U	0.00396		mg/Kg		05/23/22 11:13	05/23/22 18:51	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Client Sample ID: PH15

## Lab Sample ID: 890-2326-2

Date Collected: 05/18/22 11:20

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 1

Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		70 - 130				05/23/22 11:13	05/23/22 18:51	1
1,4-Difluorobenzene (Surr)	96		70 - 130				05/23/22 11:13	05/23/22 18:51	1
Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00396	U	0.00396		mg/Kg			05/24/22 11:05	1
Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	147		49.9		mg/Kg			05/24/22 09:21	1
Method: 8015B NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	147		49.9		mg/Kg		05/23/22 08:24	05/23/22 17:21	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/23/22 08:24	05/23/22 17:21	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/23/22 08:24	05/23/22 17:21	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	101		70 - 130				05/23/22 08:24	05/23/22 17:21	1
o-Terphenyl	110		70 - 130				05/23/22 08:24	05/23/22 17:21	1
Method: 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	1570		25.0		mg/Kg			05/25/22 08:00	5

## Client Sample ID: PH16

## Lab Sample ID: 890-2326-3

Date Collected: 05/18/22 11:25

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 0.5

Method: 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 19:12	1
Toluene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 19:12	1
Ethylbenzene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 19:12	1
m-Xylene & p-Xylene	<0.00397	U	0.00397		mg/Kg		05/23/22 11:13	05/23/22 19:12	1
o-Xylene	<0.00198	U	0.00198		mg/Kg		05/23/22 11:13	05/23/22 19:12	1
Xylenes, Total	<0.00397	U	0.00397		mg/Kg		05/23/22 11:13	05/23/22 19:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130				05/23/22 11:13	05/23/22 19:12	1
1,4-Difluorobenzene (Surr)	96		70 - 130				05/23/22 11:13	05/23/22 19:12	1
Method: Total BTEX - Total BTEX Calculation									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00397	U	0.00397		mg/Kg			05/24/22 11:05	1
Method: 8015 NM - Diesel Range Organics (DRO) (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	144		50.0		mg/Kg			05/24/22 09:21	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Client Sample ID: PH16

## Lab Sample ID: 890-2326-3

Date Collected: 05/18/22 11:25

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 0.5

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	144		50.0		mg/Kg		05/23/22 08:24	05/23/22 17:42	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:24	05/23/22 17:42	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/23/22 08:24	05/23/22 17:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	102		70 - 130				05/23/22 08:24	05/23/22 17:42	1
o-Terphenyl	109		70 - 130				05/23/22 08:24	05/23/22 17:42	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7560		101		mg/Kg			05/25/22 08:09	20

## Client Sample ID: PH16

## Lab Sample ID: 890-2326-4

Date Collected: 05/18/22 11:30

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		05/23/22 11:13	05/23/22 19:32	1
Toluene	<0.00201	U	0.00201		mg/Kg		05/23/22 11:13	05/23/22 19:32	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		05/23/22 11:13	05/23/22 19:32	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		05/23/22 11:13	05/23/22 19:32	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		05/23/22 11:13	05/23/22 19:32	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		05/23/22 11:13	05/23/22 19:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	110		70 - 130				05/23/22 11:13	05/23/22 19:32	1
1,4-Difluorobenzene (Surr)	93		70 - 130				05/23/22 11:13	05/23/22 19:32	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			05/24/22 11:05	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			05/24/22 09:21	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/23/22 08:24	05/23/22 18:03	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:24	05/23/22 18:03	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/23/22 08:24	05/23/22 18:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				05/23/22 08:24	05/23/22 18:03	1
o-Terphenyl	94		70 - 130				05/23/22 08:24	05/23/22 18:03	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Client Sample ID: PH16

Lab Sample ID: 890-2326-4

Date Collected: 05/18/22 11:30

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	673		24.9		mg/Kg			05/25/22 08:36	5

## Client Sample ID: PH17

Lab Sample ID: 890-2326-5

Date Collected: 05/18/22 11:35

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 0.5

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 19:53	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 19:53	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 19:53	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		05/23/22 11:13	05/23/22 19:53	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 19:53	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		05/23/22 11:13	05/23/22 19:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	115		70 - 130				05/23/22 11:13	05/23/22 19:53	1
1,4-Difluorobenzene (Surr)	96		70 - 130				05/23/22 11:13	05/23/22 19:53	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			05/24/22 11:05	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	73.7		49.9		mg/Kg			05/24/22 09:21	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	73.7		49.9		mg/Kg		05/23/22 08:24	05/23/22 18:25	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		05/23/22 08:24	05/23/22 18:25	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/23/22 08:24	05/23/22 18:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	105		70 - 130				05/23/22 08:24	05/23/22 18:25	1
o-Terphenyl	118		70 - 130				05/23/22 08:24	05/23/22 18:25	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	38.2		4.95		mg/Kg			05/25/22 08:46	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

Client Sample ID: PH17

Lab Sample ID: 890-2326-6

Date Collected: 05/18/22 11:40

Matrix: Solid

Date Received: 05/19/22 16:12

Sample Depth: 1

## Method: 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		05/23/22 11:13	05/23/22 20:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		05/23/22 11:13	05/23/22 20:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		05/23/22 11:13	05/23/22 20:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		05/23/22 11:13	05/23/22 20:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		05/23/22 11:13	05/23/22 20:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		05/23/22 11:13	05/23/22 20:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	114		70 - 130				05/23/22 11:13	05/23/22 20:13	1
1,4-Difluorobenzene (Surr)	94		70 - 130				05/23/22 11:13	05/23/22 20:13	1

## Method: Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			05/24/22 11:05	1

## Method: 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			05/24/22 09:21	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U *1	49.9		mg/Kg		05/24/22 08:22	05/24/22 17:50	1
Diesel Range Organics (Over C10-C28)	<49.9	U *1	49.9		mg/Kg		05/24/22 08:22	05/24/22 17:50	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		05/24/22 08:22	05/24/22 17:50	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	113		70 - 130				05/24/22 08:22	05/24/22 17:50	1
o-Terphenyl	106		70 - 130				05/24/22 08:22	05/24/22 17:50	1

## Method: 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	37.1		4.99		mg/Kg			05/25/22 08:55	1

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## Surrogate Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	BFB1 (70-130)	DFBZ1 (70-130)
890-2323-A-1-E MS	Matrix Spike	118	91
890-2323-A-1-F MSD	Matrix Spike Duplicate	110	95
890-2326-1	PH15	111	98
890-2326-2	PH15	111	96
890-2326-3	PH16	110	96
890-2326-4	PH16	110	93
890-2326-5	PH17	115	96
890-2326-6	PH17	114	94
LCS 880-26086/1-A	Lab Control Sample	108	92
LCSD 880-26086/2-A	Lab Control Sample Dup	113	90
MB 880-26086/5-A	Method Blank	107	89
<b>Surrogate Legend</b>			
BFB = 4-Bromofluorobenzene (Surr)			
DFBZ = 1,4-Difluorobenzene (Surr)			

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	1CO1 (70-130)	OTPH1 (70-130)
880-15067-A-21-C MS	Matrix Spike	88	75
880-15067-A-21-D MSD	Matrix Spike Duplicate	100	85
890-2323-A-2-B MS	Matrix Spike	101	102
890-2323-A-2-C MSD	Matrix Spike Duplicate	93	93
890-2326-1	PH15	100	110
890-2326-2	PH15	101	110
890-2326-3	PH16	102	109
890-2326-4	PH16	89	94
890-2326-5	PH17	105	118
890-2326-6	PH17	113	106
LCS 880-26028/2-A	Lab Control Sample	103	107
LCS 880-26124/2-A	Lab Control Sample	147 S1+	127
LCSD 880-26028/3-A	Lab Control Sample Dup	109	113
LCSD 880-26124/3-A	Lab Control Sample Dup	115	102
MB 880-26028/1-A	Method Blank	107	122
MB 880-26124/1-A	Method Blank	122	119
<b>Surrogate Legend</b>			
1CO = 1-Chlorooctane			
OTPH = o-Terphenyl			

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-26086/5-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26086

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		05/23/22 11:13	05/23/22 12:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		05/23/22 11:13	05/23/22 12:40	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	107		70 - 130	05/23/22 11:13	05/23/22 12:40	1
1,4-Difluorobenzene (Surr)	89		70 - 130	05/23/22 11:13	05/23/22 12:40	1

Lab Sample ID: LCS 880-26086/1-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.07806		mg/Kg		78	70 - 130
Toluene	0.100	0.09288		mg/Kg		93	70 - 130
Ethylbenzene	0.100	0.09738		mg/Kg		97	70 - 130
m-Xylene & p-Xylene	0.200	0.2011		mg/Kg		101	70 - 130
o-Xylene	0.100	0.1007		mg/Kg		101	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	108		70 - 130
1,4-Difluorobenzene (Surr)	92		70 - 130

Lab Sample ID: LCSD 880-26086/2-A

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07770		mg/Kg		78	70 - 130	0	35
Toluene	0.100	0.09565		mg/Kg		96	70 - 130	3	35
Ethylbenzene	0.100	0.1006		mg/Kg		101	70 - 130	3	35
m-Xylene & p-Xylene	0.200	0.2095		mg/Kg		105	70 - 130	4	35
o-Xylene	0.100	0.1055		mg/Kg		105	70 - 130	5	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	90		70 - 130

Lab Sample ID: 890-2323-A-1-E MS

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00201	U	0.101	0.07463		mg/Kg		74	70 - 130
Toluene	<0.00201	U	0.101	0.08606		mg/Kg		85	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-2323-A-1-E MS

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00201	U	0.101	0.08076		mg/Kg		80	70 - 130
m-Xylene & p-Xylene	<0.00402	U	0.202	0.1659		mg/Kg		82	70 - 130
o-Xylene	<0.00201	U	0.101	0.08089		mg/Kg		80	70 - 130

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene (Surr)	118		70 - 130
1,4-Difluorobenzene (Surr)	91		70 - 130

Lab Sample ID: 890-2323-A-1-F MSD

Matrix: Solid

Analysis Batch: 26017

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 26086

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00201	U	0.0990	0.07739		mg/Kg		78	70 - 130	4	35
Toluene	<0.00201	U	0.0990	0.08395		mg/Kg		85	70 - 130	2	35
Ethylbenzene	<0.00201	U	0.0990	0.07464		mg/Kg		75	70 - 130	8	35
m-Xylene & p-Xylene	<0.00402	U	0.198	0.1500		mg/Kg		76	70 - 130	10	35
o-Xylene	<0.00201	U	0.0990	0.07520		mg/Kg		76	70 - 130	7	35

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	110		70 - 130
1,4-Difluorobenzene (Surr)	95		70 - 130

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-26028/1-A

Matrix: Solid

Analysis Batch: 26024

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26028

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/23/22 08:23	05/23/22 09:53	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/23/22 08:23	05/23/22 09:53	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/23/22 08:23	05/23/22 09:53	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130	05/23/22 08:23	05/23/22 09:53	1
o-Terphenyl	122		70 - 130	05/23/22 08:23	05/23/22 09:53	1

Lab Sample ID: LCS 880-26028/2-A

Matrix: Solid

Analysis Batch: 26024

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26028

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	888.2		mg/Kg		89	70 - 130
Diesel Range Organics (Over C10-C28)	1000	800.7		mg/Kg		80	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 880-26028/2-A

Matrix: Solid

Analysis Batch: 26024

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26028

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	103		70 - 130
o-Terphenyl	107		70 - 130

Lab Sample ID: LCSD 880-26028/3-A

Matrix: Solid

Analysis Batch: 26024

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26028

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	908.6		mg/Kg		91	70 - 130	2	20
Diesel Range Organics (Over C10-C28)	1000	914.8		mg/Kg		91	70 - 130	13	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	109		70 - 130
o-Terphenyl	113		70 - 130

Lab Sample ID: 890-2323-A-2-B MS

Matrix: Solid

Analysis Batch: 26024

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26028

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	1000	1466	F1	mg/Kg		144	70 - 130		
Diesel Range Organics (Over C10-C28)	<50.0	U	1000	948.2		mg/Kg		95	70 - 130		

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	101		70 - 130
o-Terphenyl	102		70 - 130

Lab Sample ID: 890-2323-A-2-C MSD

Matrix: Solid

Analysis Batch: 26024

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 26028

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U F1 F2	999	1176	F2	mg/Kg		116	70 - 130	22	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	871.0		mg/Kg		87	70 - 130	8	20

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	93		70 - 130
o-Terphenyl	93		70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-26124/1-A

Matrix: Solid

Analysis Batch: 26134

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 26124

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 10:11	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 10:11	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		05/24/22 08:22	05/24/22 10:11	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	122		70 - 130				05/24/22 08:22	05/24/22 10:11	1
o-Terphenyl	119		70 - 130				05/24/22 08:22	05/24/22 10:11	1

Lab Sample ID: LCS 880-26124/2-A

Matrix: Solid

Analysis Batch: 26134

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 26124

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	1118		mg/Kg		112	70 - 130
Diesel Range Organics (Over C10-C28)	1000	972.6		mg/Kg		97	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	147	S1+	70 - 130				
o-Terphenyl	127		70 - 130				

Lab Sample ID: LCSD 880-26124/3-A

Matrix: Solid

Analysis Batch: 26134

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 26124

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	814.5	*1	mg/Kg		81	70 - 130	31	20
Diesel Range Organics (Over C10-C28)	1000	776.9	*1	mg/Kg		78	70 - 130	22	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	115		70 - 130						
o-Terphenyl	102		70 - 130						

Lab Sample ID: 880-15067-A-21-C MS

Matrix: Solid

Analysis Batch: 26134

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26124

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	55.3	*1	1000	778.9		mg/Kg		72	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U *1	1000	799.3		mg/Kg		78	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 880-15067-A-21-C MS

Matrix: Solid

Analysis Batch: 26134

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 26124

	MS	MS	
Surrogate	%Recovery	Qualifier	Limits
1-Chlorooctane	88		70 - 130
o-Terphenyl	75		70 - 130

Lab Sample ID: 880-15067-A-21-D MSD

Matrix: Solid

Analysis Batch: 26134

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 26124

	Sample	Sample	Spike	MSD	MSD				%Rec		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Gasoline Range Organics (GRO)-C6-C10	55.3	*1	999	925.3		mg/Kg		87	70 - 130	17	20
Diesel Range Organics (Over C10-C28)	<50.0	U *1	999	906.2		mg/Kg		89	70 - 130	13	20
	MSD	MSD									
Surrogate	%Recovery	Qualifier	Limits								
1-Chlorooctane	100		70 - 130								
o-Terphenyl	85		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-26084/1-A

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: Method Blank

Prep Type: Soluble

	MB	MB								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac	
Chloride	<5.00	U	5.00		mg/Kg			05/25/22 04:55	1	

Lab Sample ID: LCS 880-26084/2-A

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: Lab Control Sample

Prep Type: Soluble

	Spike	LCS	LCS					%Rec		
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits			
Chloride	250	247.4		mg/Kg		99	90 - 110			

Lab Sample ID: LCSD 880-26084/3-A

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

	Spike	LCSD	LCSD					%Rec		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
Chloride	250	255.6		mg/Kg		102	90 - 110	3	20	

Lab Sample ID: 890-2326-1 MS

Matrix: Solid

Analysis Batch: 26199

Client Sample ID: PH15

Prep Type: Soluble

	Sample	Sample	Spike	MS	MS				%Rec	
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Chloride	8780	F1	5050	15820	F1	mg/Kg		139	90 - 110	

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QC Sample Results

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 890-2326-1 MSD					Client Sample ID: PH15							
Matrix: Solid					Prep Type: Soluble							
Analysis Batch: 26199												
Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit	
Chloride	8780	F1	5050	16220	F1	mg/Kg		147	90 - 110	2	20	



## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## GC VOA

## Analysis Batch: 26017

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1	PH15	Total/NA	Solid	8021B	26086
890-2326-2	PH15	Total/NA	Solid	8021B	26086
890-2326-3	PH16	Total/NA	Solid	8021B	26086
890-2326-4	PH16	Total/NA	Solid	8021B	26086
890-2326-5	PH17	Total/NA	Solid	8021B	26086
890-2326-6	PH17	Total/NA	Solid	8021B	26086
MB 880-26086/5-A	Method Blank	Total/NA	Solid	8021B	26086
LCS 880-26086/1-A	Lab Control Sample	Total/NA	Solid	8021B	26086
LCSD 880-26086/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	26086
890-2323-A-1-E MS	Matrix Spike	Total/NA	Solid	8021B	26086
890-2323-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	26086

## Prep Batch: 26086

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1	PH15	Total/NA	Solid	5035	
890-2326-2	PH15	Total/NA	Solid	5035	
890-2326-3	PH16	Total/NA	Solid	5035	
890-2326-4	PH16	Total/NA	Solid	5035	
890-2326-5	PH17	Total/NA	Solid	5035	
890-2326-6	PH17	Total/NA	Solid	5035	
MB 880-26086/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-26086/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-26086/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-2323-A-1-E MS	Matrix Spike	Total/NA	Solid	5035	
890-2323-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 26172

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1	PH15	Total/NA	Solid	Total BTEX	
890-2326-2	PH15	Total/NA	Solid	Total BTEX	
890-2326-3	PH16	Total/NA	Solid	Total BTEX	
890-2326-4	PH16	Total/NA	Solid	Total BTEX	
890-2326-5	PH17	Total/NA	Solid	Total BTEX	
890-2326-6	PH17	Total/NA	Solid	Total BTEX	

## GC Semi VOA

## Analysis Batch: 26024

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1	PH15	Total/NA	Solid	8015B NM	26028
890-2326-2	PH15	Total/NA	Solid	8015B NM	26028
890-2326-3	PH16	Total/NA	Solid	8015B NM	26028
890-2326-4	PH16	Total/NA	Solid	8015B NM	26028
890-2326-5	PH17	Total/NA	Solid	8015B NM	26028
MB 880-26028/1-A	Method Blank	Total/NA	Solid	8015B NM	26028
LCS 880-26028/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26028
LCSD 880-26028/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26028
890-2323-A-2-B MS	Matrix Spike	Total/NA	Solid	8015B NM	26028
890-2323-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26028

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## GC Semi VOA

## Prep Batch: 26028

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1	PH15	Total/NA	Solid	8015NM Prep	
890-2326-2	PH15	Total/NA	Solid	8015NM Prep	
890-2326-3	PH16	Total/NA	Solid	8015NM Prep	
890-2326-4	PH16	Total/NA	Solid	8015NM Prep	
890-2326-5	PH17	Total/NA	Solid	8015NM Prep	
MB 880-26028/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26028/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26028/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-2323-A-2-B MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-2323-A-2-C MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Prep Batch: 26124

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-6	PH17	Total/NA	Solid	8015NM Prep	
MB 880-26124/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-26124/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-26124/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
880-15067-A-21-C MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
880-15067-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 26130

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1	PH15	Total/NA	Solid	8015 NM	
890-2326-2	PH15	Total/NA	Solid	8015 NM	
890-2326-3	PH16	Total/NA	Solid	8015 NM	
890-2326-4	PH16	Total/NA	Solid	8015 NM	
890-2326-5	PH17	Total/NA	Solid	8015 NM	
890-2326-6	PH17	Total/NA	Solid	8015 NM	

## Analysis Batch: 26134

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-6	PH17	Total/NA	Solid	8015B NM	26124
MB 880-26124/1-A	Method Blank	Total/NA	Solid	8015B NM	26124
LCS 880-26124/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	26124
LCSD 880-26124/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	26124
880-15067-A-21-C MS	Matrix Spike	Total/NA	Solid	8015B NM	26124
880-15067-A-21-D MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	26124

## HPLC/IC

## Leach Batch: 26084

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1	PH15	Soluble	Solid	DI Leach	
890-2326-2	PH15	Soluble	Solid	DI Leach	
890-2326-3	PH16	Soluble	Solid	DI Leach	
890-2326-4	PH16	Soluble	Solid	DI Leach	
890-2326-5	PH17	Soluble	Solid	DI Leach	
890-2326-6	PH17	Soluble	Solid	DI Leach	
MB 880-26084/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-26084/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-26084/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## HPLC/IC (Continued)

## Leach Batch: 26084 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1 MS	PH15	Soluble	Solid	DI Leach	
890-2326-1 MSD	PH15	Soluble	Solid	DI Leach	

## Analysis Batch: 26199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-2326-1	PH15	Soluble	Solid	300.0	26084
890-2326-2	PH15	Soluble	Solid	300.0	26084
890-2326-3	PH16	Soluble	Solid	300.0	26084
890-2326-4	PH16	Soluble	Solid	300.0	26084
890-2326-5	PH17	Soluble	Solid	300.0	26084
890-2326-6	PH17	Soluble	Solid	300.0	26084
MB 880-26084/1-A	Method Blank	Soluble	Solid	300.0	26084
LCS 880-26084/2-A	Lab Control Sample	Soluble	Solid	300.0	26084
LCSD 880-26084/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	26084
890-2326-1 MS	PH15	Soluble	Solid	300.0	26084
890-2326-1 MSD	PH15	Soluble	Solid	300.0	26084

## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

## Client Sample ID: PH15

## Lab Sample ID: 890-2326-1

Date Collected: 05/18/22 11:15

Matrix: Solid

Date Received: 05/19/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	26086	05/23/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26017	05/23/22 18:31	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26172	05/24/22 11:05	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26130	05/24/22 09:21	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26028	05/23/22 08:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26024	05/23/22 16:59	AJ	XEN MID
Soluble	Leach	DI Leach			4.95 g	50 mL	26084	05/23/22 11:02	SC	XEN MID
Soluble	Analysis	300.0		20			26199	05/25/22 07:32	CH	XEN MID

## Client Sample ID: PH15

## Lab Sample ID: 890-2326-2

Date Collected: 05/18/22 11:20

Matrix: Solid

Date Received: 05/19/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.05 g	5 mL	26086	05/23/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26017	05/23/22 18:51	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26172	05/24/22 11:05	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26130	05/24/22 09:21	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	26028	05/23/22 08:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26024	05/23/22 17:21	AJ	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26084	05/23/22 11:02	SC	XEN MID
Soluble	Analysis	300.0		5			26199	05/25/22 08:00	CH	XEN MID

## Client Sample ID: PH16

## Lab Sample ID: 890-2326-3

Date Collected: 05/18/22 11:25

Matrix: Solid

Date Received: 05/19/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.04 g	5 mL	26086	05/23/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26017	05/23/22 19:12	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26172	05/24/22 11:05	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26130	05/24/22 09:21	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	26028	05/23/22 08:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26024	05/23/22 17:42	AJ	XEN MID
Soluble	Leach	DI Leach			4.96 g	50 mL	26084	05/23/22 11:02	SC	XEN MID
Soluble	Analysis	300.0		20			26199	05/25/22 08:09	CH	XEN MID

## Client Sample ID: PH16

## Lab Sample ID: 890-2326-4

Date Collected: 05/18/22 11:30

Matrix: Solid

Date Received: 05/19/22 16:12

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	26086	05/23/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26017	05/23/22 19:32	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26172	05/24/22 11:05	SM	XEN MID

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Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

Client Sample ID: PH16  
Date Collected: 05/18/22 11:30  
Date Received: 05/19/22 16:12

Lab Sample ID: 890-2326-4  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			26130	05/24/22 09:21	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	26028	05/23/22 08:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26024	05/23/22 18:03	AJ	XEN MID
Soluble	Leach	DI Leach			5.03 g	50 mL	26084	05/23/22 11:02	SC	XEN MID
Soluble	Analysis	300.0		5			26199	05/25/22 08:36	CH	XEN MID

Client Sample ID: PH17  
Date Collected: 05/18/22 11:35  
Date Received: 05/19/22 16:12

Lab Sample ID: 890-2326-5  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	26086	05/23/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26017	05/23/22 19:53	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26172	05/24/22 11:05	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26130	05/24/22 09:21	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	26028	05/23/22 08:24	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26024	05/23/22 18:25	AJ	XEN MID
Soluble	Leach	DI Leach			5.05 g	50 mL	26084	05/23/22 11:02	SC	XEN MID
Soluble	Analysis	300.0		1			26199	05/25/22 08:46	CH	XEN MID

Client Sample ID: PH17  
Date Collected: 05/18/22 11:40  
Date Received: 05/19/22 16:12

Lab Sample ID: 890-2326-6  
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	26086	05/23/22 11:13	MR	XEN MID
Total/NA	Analysis	8021B		1			26017	05/23/22 20:13	MR	XEN MID
Total/NA	Analysis	Total BTEX		1			26172	05/24/22 11:05	SM	XEN MID
Total/NA	Analysis	8015 NM		1			26130	05/24/22 09:21	SM	XEN MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	26124	05/24/22 08:22	DM	XEN MID
Total/NA	Analysis	8015B NM		1			26134	05/24/22 17:50	SM	XEN MID
Soluble	Leach	DI Leach			5.01 g	50 mL	26084	05/23/22 11:02	SC	XEN MID
Soluble	Analysis	300.0		1			26199	05/25/22 08:55	CH	XEN MID

Laboratory References:  
XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-21-22	06-30-22

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

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13
14

Method Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	XEN MID
Total BTEX	Total BTEX Calculation	TAL SOP	XEN MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	XEN MID
300.0	Anions, Ion Chromatography	MCAWW	XEN MID
5035	Closed System Purge and Trap	SW846	XEN MID
8015NM Prep	Microextraction	SW846	XEN MID
DI Leach	Deionized Water Leaching Procedure	ASTM	XEN MID

**Protocol References:**

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

**Laboratory References:**

XEN MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440



Sample Summary

Client: Ensolum  
Project/Site: Pecos Federal #001Y

Job ID: 890-2326-1  
SDG: 03A1987014

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-2326-1	PH15	Solid	05/18/22 11:15	05/19/22 16:12	0.5
890-2326-2	PH15	Solid	05/18/22 11:20	05/19/22 16:12	1
890-2326-3	PH16	Solid	05/18/22 11:25	05/19/22 16:12	0.5
890-2326-4	PH16	Solid	05/18/22 11:30	05/19/22 16:12	1
890-2326-5	PH17	Solid	05/18/22 11:35	05/19/22 16:12	0.5
890-2326-6	PH17	Solid	05/18/22 11:40	05/19/22 16:12	1





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Midland, TX (432) 704-5440, San Antonio, TX (210) 509-333-  
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

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Work Order Comments	
Program: UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>	
State of Project:	
Reporting: Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>	
Deliverables: EDD <input type="checkbox"/> ADAPT <input type="checkbox"/> Other:	

[illegible]Revised Date: 08/25/2020 Rev 2020 2

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Eurofins Carlsbad

1089 N Canal St.  
Carlsbad, NM 86220  
Phone: 575-988-3199 Fax 575-988-3199

Chain of Custody Record



Environment Testing  
America

<b>Client Information (Sub Contract Lab)</b>		Sampler	Lab PM	Carrier Tracking No(s)	COC No						
Client Contact	Phone	Kramer Jessica			890-764 1						
Shipping/Receiving	E-Mail	Jessica.Kramer@eurofins.com	State of Origin		Page 1 of 1						
Company		Accreditations Required (See note):	New Mexico		Job #						
Eurofins Environment Testing South Center		NELAP - Texas			890-2326-1						
Address	Due Date Requested:	Analysis Requested									
1211 W Florida Ave	5/25/2022										
City	TAT Requested (days):										
Midland											
State Zip											
TX 79701											
Phone	PO #										
432-704-5440(Tel)											
Email	WO #										
Project Name	Project #										
Pecos Federal #001Y	89000084										
Site	SSCW#										
<b>Sample Identification - Client ID (Lab ID)</b>		<b>Sample Date</b>	<b>Sample Time</b>	<b>Sample Type (C=Comp, G=grab)</b>	<b>Matrix (W=water, S=soil, O=wastewater, BT=biomass, A=air)</b>	<b>Field Filtered Sample (Yes or No)</b>	<b>Perform MS/MSD (Yes or No)</b>			<b>Total Number of containers</b>	<b>Special Instructions/Note:</b>
PH15 (890-2326-1)		5/18/22	11 15		Solid		X	X	X	X	
PH15 (890-2326-2)		5/18/22	11 20		Solid		X	X	X	X	
PH16 (890-2326-3)		5/18/22	11 25		Solid		X	X	X	X	
PH16 (890-2326-4)		5/18/22	11 30		Solid		X	X	X	X	
PH17 (890-2326-5)		5/18/22	11 35		Solid		X	X	X	X	
PH17 (890-2326-6)		5/18/22	11 40		Solid		X	X	X	X	
Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Center, LLC places the ownership of method, analyze & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis, the matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Center, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Center, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Center, LLC.											
<b>Possible Hazard Identification</b>											
<b>Unconfirmed</b>											
Deliverable Requested I II III IV Other (specify) Primary Deliverable Rank 2 Special Instructions/QC Requirements											
Empty Kit Relinquished by Date Time Method of Shipment:											
Relinquished by N Divas 5:20:22 Date/Time Company Received by J Kramer Date/Time 5/23/22 900 Company											
Relinquished by Date/Time Company Received by Date/Time Company											
Custody Seals Intact Custody Seal No Cooler Temperature(s) °C and Other Remarks 2/1/9											
Δ Yes Δ No											

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2326-1

SDG Number: 03A1987014

Login Number: 2326

List Number: 1

Creator: Olivas, Nathaniel

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-2326-1

SDG Number: 03A1987014

Login Number: 2326

List Number: 2

Creator: Kramer, Jessica

List Source: Eurofins Midland

List Creation: 05/23/22 08:18 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.1/1.9
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Environment Testing

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# ANALYTICAL REPORT

## PREPARED FOR

Attn: Devon Team  
Ensolum  
705 W. Wadley  
Suite 210  
Midland Texas 79701

Generated 11/22/2022 3:23:06 PM

## JOB DESCRIPTION

Pecos Fed 1Y  
SDG NUMBER Eddy County NM

## JOB NUMBER

890-3434-1



Client: Ensolum  
Project/Site: Pecos Fed 1Y

Laboratory Job ID: 890-3434-1  
SDG: Eddy County NM

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## Definitions/Glossary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## Qualifiers

## GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

## GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## HPLC/IC

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
SQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Job ID: 890-3434-1

Laboratory: Eurofins Carlsbad

Narrative	Job Narrative 890-3434-1
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Receipt

The samples were received on 11/11/2022 10:04 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 5.4°C

Receipt Exceptions

The following samples were received and analyzed from an unpreserved bulk soil jar: PH11 (890-3434-1), PH11 (890-3434-2), PH16 (890-3434-3), PH16 (890-3434-4), PH16 (890-3434-5), PH18 (890-3434-6), PH18 (890-3434-7), PH18 (890-3434-8) and PH18 (890-3434-9).

GC VOA

Method 8021B: Surrogate recovery for the following sample was outside control limits: PH11 (890-3434-1). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH11

Lab Sample ID: 890-3434-1

Date Collected: 11/10/22 09:10

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 4'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 03:32	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 03:32	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 03:32	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/14/22 15:47	11/22/22 03:32	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 03:32	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/14/22 15:47	11/22/22 03:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	135	S1+	70 - 130	11/14/22 15:47	11/22/22 03:32	1
1,4-Difluorobenzene (Surr)	136	S1+	70 - 130	11/14/22 15:47	11/22/22 03:32	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/15/22 16:29	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 14:59	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 14:59	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 14:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	92		70 - 130	11/14/22 14:27	11/15/22 14:59	1
o-Terphenyl	93		70 - 130	11/14/22 14:27	11/15/22 14:59	1

## Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	490		4.98		mg/Kg			11/16/22 02:40	1

Client Sample ID: PH11

Lab Sample ID: 890-3434-2

Date Collected: 11/10/22 09:20

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 8'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 03:53	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 03:53	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 03:53	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/22 15:47	11/22/22 03:53	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 03:53	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/22 15:47	11/22/22 03:53	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	122		70 - 130	11/14/22 15:47	11/22/22 03:53	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH11

Lab Sample ID: 890-3434-2

Date Collected: 11/10/22 09:20

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 8'

## Method: SW846 8021B - Volatile Organic Compounds (GC) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,4-Difluorobenzene (Surr)	129		70 - 130	11/14/22 15:47	11/22/22 03:53	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/16/22 09:14	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 16:05	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 16:05	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 16:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	94		70 - 130				11/14/22 14:27	11/15/22 16:05	1
o-Terphenyl	93		70 - 130				11/14/22 14:27	11/15/22 16:05	1

## Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	204		4.97		mg/Kg			11/16/22 02:46	1

Client Sample ID: PH16

Lab Sample ID: 890-3434-3

Date Collected: 11/10/22 09:40

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 4'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 04:13	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 04:13	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 04:13	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/22 15:47	11/22/22 04:13	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 04:13	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/22 15:47	11/22/22 04:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	116		70 - 130	11/14/22 15:47	11/22/22 04:13	1
1,4-Difluorobenzene (Surr)	106		70 - 130	11/14/22 15:47	11/22/22 04:13	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/16/22 09:14	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH16

Lab Sample ID: 890-3434-3

Date Collected: 11/10/22 09:40

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 4'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 16:26	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 16:26	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 16:26	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	88		70 - 130				11/14/22 14:27	11/15/22 16:26	1
o-Terphenyl	88		70 - 130				11/14/22 14:27	11/15/22 16:26	1

## Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	211		5.01		mg/Kg			11/16/22 02:51	1

Client Sample ID: PH16

Lab Sample ID: 890-3434-4

Date Collected: 11/10/22 09:50

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 6'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 04:34	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 04:34	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 04:34	1
m-Xylene & p-Xylene	<0.00399	U	0.00399		mg/Kg		11/14/22 15:47	11/22/22 04:34	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 04:34	1
Xylenes, Total	<0.00399	U	0.00399		mg/Kg		11/14/22 15:47	11/22/22 04:34	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	118		70 - 130				11/14/22 15:47	11/22/22 04:34	1
1,4-Difluorobenzene (Surr)	108		70 - 130				11/14/22 15:47	11/22/22 04:34	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00399	U	0.00399		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/16/22 09:14	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 16:47	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 16:47	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 16:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	89		70 - 130				11/14/22 14:27	11/15/22 16:47	1
o-Terphenyl	88		70 - 130				11/14/22 14:27	11/15/22 16:47	1

Eurofins Carlsbad

## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## Client Sample ID: PH16

Lab Sample ID: 890-3434-4

Date Collected: 11/10/22 09:50

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 6'

## Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	424		4.98		mg/Kg			11/16/22 02:57	1

## Client Sample ID: PH16

Lab Sample ID: 890-3434-5

Date Collected: 11/10/22 10:00

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 8'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/14/22 15:47	11/22/22 04:54	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/14/22 15:47	11/22/22 04:54	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/14/22 15:47	11/22/22 04:54	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/14/22 15:47	11/22/22 04:54	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/14/22 15:47	11/22/22 04:54	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/14/22 15:47	11/22/22 04:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	117		70 - 130				11/14/22 15:47	11/22/22 04:54	1
1,4-Difluorobenzene (Surr)	107		70 - 130				11/14/22 15:47	11/22/22 04:54	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<50.0	U	50.0		mg/Kg			11/16/22 09:14	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 17:08	1
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 17:08	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 17:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130				11/14/22 14:27	11/15/22 17:08	1
o-Terphenyl	99		70 - 130				11/14/22 14:27	11/15/22 17:08	1

## Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	221		5.03		mg/Kg			11/16/22 03:02	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH18

Lab Sample ID: 890-3434-6

Date Collected: 11/10/22 10:20

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 0.5'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 05:15	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 05:15	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 05:15	1
m-Xylene & p-Xylene	<0.00401	U	0.00401		mg/Kg		11/14/22 15:47	11/22/22 05:15	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/22/22 05:15	1
Xylenes, Total	<0.00401	U	0.00401		mg/Kg		11/14/22 15:47	11/22/22 05:15	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	127		70 - 130	11/14/22 15:47	11/22/22 05:15	1
1,4-Difluorobenzene (Surr)	108		70 - 130	11/14/22 15:47	11/22/22 05:15	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00401	U	0.00401		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	158		50.0		mg/Kg			11/16/22 09:14	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 17:28	1
Diesel Range Organics (Over C10-C28)	66.9		50.0		mg/Kg		11/14/22 14:27	11/15/22 17:28	1
Oil Range Organics (Over C28-C36)	90.9		50.0		mg/Kg		11/14/22 14:27	11/15/22 17:28	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1-Chlorooctane	100		70 - 130	11/14/22 14:27	11/15/22 17:28	1
o-Terphenyl	99		70 - 130	11/14/22 14:27	11/15/22 17:28	1

## Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4080		50.2		mg/Kg			11/16/22 03:19	10

Client Sample ID: PH18

Lab Sample ID: 890-3434-7

Date Collected: 11/10/22 10:30

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 4'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00201	U	0.00201		mg/Kg		11/14/22 15:47	11/22/22 05:36	1
Toluene	<0.00201	U	0.00201		mg/Kg		11/14/22 15:47	11/22/22 05:36	1
Ethylbenzene	<0.00201	U	0.00201		mg/Kg		11/14/22 15:47	11/22/22 05:36	1
m-Xylene & p-Xylene	<0.00402	U	0.00402		mg/Kg		11/14/22 15:47	11/22/22 05:36	1
o-Xylene	<0.00201	U	0.00201		mg/Kg		11/14/22 15:47	11/22/22 05:36	1
Xylenes, Total	<0.00402	U	0.00402		mg/Kg		11/14/22 15:47	11/22/22 05:36	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH18

Lab Sample ID: 890-3434-7

Date Collected: 11/10/22 10:30

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 4'

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130	11/14/22 15:47	11/22/22 05:36	1
1,4-Difluorobenzene (Surr)	104		70 - 130	11/14/22 15:47	11/22/22 05:36	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00402	U	0.00402		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/16/22 09:14	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 17:49	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 17:49	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 17:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	86		70 - 130				11/14/22 14:27	11/15/22 17:49	1
o-Terphenyl	85		70 - 130				11/14/22 14:27	11/15/22 17:49	1

## Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	629		5.04		mg/Kg			11/16/22 03:25	1

Client Sample ID: PH18

Lab Sample ID: 890-3434-8

Date Collected: 11/10/22 10:40

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 6'

Method: SW846 8021B - Volatile Organic Compounds (GC)									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 05:56	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 05:56	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 05:56	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/22 15:47	11/22/22 05:56	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 05:56	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/22 15:47	11/22/22 05:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	121		70 - 130				11/14/22 15:47	11/22/22 05:56	1
1,4-Difluorobenzene (Surr)	106		70 - 130				11/14/22 15:47	11/22/22 05:56	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.9	U	49.9		mg/Kg			11/16/22 09:14	1

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## Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH18

Lab Sample ID: 890-3434-8

Date Collected: 11/10/22 10:40

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 6'

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 18:10	1
Diesel Range Organics (Over C10-C28)	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 18:10	1
Oil Range Organics (Over C28-C36)	<49.9	U	49.9		mg/Kg		11/14/22 14:27	11/15/22 18:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	78		70 - 130				11/14/22 14:27	11/15/22 18:10	1
o-Terphenyl	76		70 - 130				11/14/22 14:27	11/15/22 18:10	1

## Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	600		4.97		mg/Kg			11/16/22 03:42	1

Client Sample ID: PH18

Lab Sample ID: 890-3434-9

Date Collected: 11/10/22 10:50

Matrix: Solid

Date Received: 11/11/22 10:04

Sample Depth: 8'

## Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 06:17	1
Toluene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 06:17	1
Ethylbenzene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 06:17	1
m-Xylene & p-Xylene	<0.00398	U	0.00398		mg/Kg		11/14/22 15:47	11/22/22 06:17	1
o-Xylene	<0.00199	U	0.00199		mg/Kg		11/14/22 15:47	11/22/22 06:17	1
Xylenes, Total	<0.00398	U	0.00398		mg/Kg		11/14/22 15:47	11/22/22 06:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	124		70 - 130				11/14/22 15:47	11/22/22 06:17	1
1,4-Difluorobenzene (Surr)	111		70 - 130				11/14/22 15:47	11/22/22 06:17	1

## Method: TAL SOP Total BTEX - Total BTEX Calculation

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total BTEX	<0.00398	U	0.00398		mg/Kg			11/22/22 15:30	1

## Method: SW846 8015 NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total TPH	<49.8	U	49.8		mg/Kg			11/16/22 09:14	1

## Method: SW846 8015B NM - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<49.8	U	49.8		mg/Kg		11/14/22 14:27	11/15/22 18:31	1
Diesel Range Organics (Over C10-C28)	<49.8	U	49.8		mg/Kg		11/14/22 14:27	11/15/22 18:31	1
Oil Range Organics (Over C28-C36)	<49.8	U	49.8		mg/Kg		11/14/22 14:27	11/15/22 18:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	85		70 - 130				11/14/22 14:27	11/15/22 18:31	1
o-Terphenyl	83		70 - 130				11/14/22 14:27	11/15/22 18:31	1

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Client Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH18  
Date Collected: 11/10/22 10:50  
Date Received: 11/11/22 10:04  
Sample Depth: 8'

Lab Sample ID: 890-3434-9  
Matrix: Solid

Method: MCAWW 300.0 - Anions, Ion Chromatography - Soluble									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	365		25.3		mg/Kg			11/16/22 03:48	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

## Surrogate Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## Method: 8021B - Volatile Organic Compounds (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
Lab Sample ID	Client Sample ID	BFB1	DFBZ1				
		(70-130)	(70-130)				
890-3423-A-1-D MS	Matrix Spike	104	94				
890-3423-A-1-E MSD	Matrix Spike Duplicate	113	87				
890-3434-1	PH11	135 S1+	136 S1+				
890-3434-2	PH11	122	129				
890-3434-3	PH16	116	106				
890-3434-4	PH16	118	108				
890-3434-5	PH16	117	107				
890-3434-6	PH18	127	108				
890-3434-7	PH18	121	104				
890-3434-8	PH18	121	106				
890-3434-9	PH18	124	111				
LCS 880-39546/1-A	Lab Control Sample	91	82				
LCSD 880-39546/2-A	Lab Control Sample Dup	99	93				
MB 880-39546/5-A	Method Blank	112	92				
MB 880-40068/5-A	Method Blank	101	92				
Surrogate Legend							
BFB = 4-Bromofluorobenzene (Surr)							
DFBZ = 1,4-Difluorobenzene (Surr)							

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	1CO1	OTPH1						
		(70-130)	(70-130)						
890-3432-A-1-E MS	Matrix Spike	88	75						
890-3432-A-1-F MSD	Matrix Spike Duplicate	87	74						
890-3434-1	PH11	92	93						
890-3434-2	PH11	94	93						
890-3434-3	PH16	88	88						
890-3434-4	PH16	89	88						
890-3434-5	PH16	100	99						
890-3434-6	PH18	100	99						
890-3434-7	PH18	86	85						
890-3434-8	PH18	78	76						
890-3434-9	PH18	85	83						
LCS 880-39516/2-A	Lab Control Sample	84	81						
LCSD 880-39516/3-A	Lab Control Sample Dup	84	81						
MB 880-39516/1-A	Method Blank	107	110						
Surrogate Legend									
1CO = 1-Chlorooctane									
OTPH = o-Terphenyl									

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 880-39546/5-A

Matrix: Solid

Analysis Batch: 40037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39546

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/21/22 22:20	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/21/22 22:20	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/21/22 22:20	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/14/22 15:47	11/21/22 22:20	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/14/22 15:47	11/21/22 22:20	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/14/22 15:47	11/21/22 22:20	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	112		70 - 130	11/14/22 15:47	11/21/22 22:20	1
1,4-Difluorobenzene (Surr)	92		70 - 130	11/14/22 15:47	11/21/22 22:20	1

Lab Sample ID: LCS 880-39546/1-A

Matrix: Solid

Analysis Batch: 40037

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39546

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	0.100	0.06955		mg/Kg		70	70 - 130
Toluene	0.100	0.08190		mg/Kg		82	70 - 130
Ethylbenzene	0.100	0.08788		mg/Kg		88	70 - 130
m-Xylene & p-Xylene	0.200	0.1753		mg/Kg		88	70 - 130
o-Xylene	0.100	0.1027		mg/Kg		103	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	91		70 - 130
1,4-Difluorobenzene (Surr)	82		70 - 130

Lab Sample ID: LCSD 880-39546/2-A

Matrix: Solid

Analysis Batch: 40037

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39546

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	0.100	0.07665		mg/Kg		77	70 - 130	10	35
Toluene	0.100	0.08944		mg/Kg		89	70 - 130	9	35
Ethylbenzene	0.100	0.09524		mg/Kg		95	70 - 130	8	35
m-Xylene & p-Xylene	0.200	0.1909		mg/Kg		95	70 - 130	9	35
o-Xylene	0.100	0.1111		mg/Kg		111	70 - 130	8	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	99		70 - 130
1,4-Difluorobenzene (Surr)	93		70 - 130

Lab Sample ID: 890-3423-A-1-D MS

Matrix: Solid

Analysis Batch: 40037

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 39546

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	<0.00199	U	0.0998	0.07603		mg/Kg		76	70 - 130
Toluene	<0.00199	U	0.0998	0.08510		mg/Kg		85	70 - 130

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 890-3423-A-1-D MS

Matrix: Solid

Analysis Batch: 40037

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 39546

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Ethylbenzene	<0.00199	U	0.0998	0.08975		mg/Kg		90	70 - 130
m-Xylene & p-Xylene	<0.00398	U	0.200	0.1800		mg/Kg		90	70 - 130
o-Xylene	<0.00199	U	0.0998	0.1033		mg/Kg		103	70 - 130

Surrogate	MS %Recovery	MS Qualifier	MS Limits
4-Bromofluorobenzene (Surr)	104		70 - 130
1,4-Difluorobenzene (Surr)	94		70 - 130

Lab Sample ID: 890-3423-A-1-E MSD

Matrix: Solid

Analysis Batch: 40037

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 39546

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	<0.00199	U	0.0996	0.07504		mg/Kg		75	70 - 130	1	35
Toluene	<0.00199	U	0.0996	0.08927		mg/Kg		90	70 - 130	5	35
Ethylbenzene	<0.00199	U	0.0996	0.09882		mg/Kg		99	70 - 130	10	35
m-Xylene & p-Xylene	<0.00398	U	0.199	0.1954		mg/Kg		98	70 - 130	8	35
o-Xylene	<0.00199	U	0.0996	0.1117		mg/Kg		112	70 - 130	8	35

Surrogate	MSD %Recovery	MSD Qualifier	MSD Limits
4-Bromofluorobenzene (Surr)	113		70 - 130
1,4-Difluorobenzene (Surr)	87		70 - 130

Lab Sample ID: MB 880-40068/5-A

Matrix: Solid

Analysis Batch: 40037

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 40068

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.00200	U	0.00200		mg/Kg		11/21/22 09:48	11/21/22 11:40	1
Toluene	<0.00200	U	0.00200		mg/Kg		11/21/22 09:48	11/21/22 11:40	1
Ethylbenzene	<0.00200	U	0.00200		mg/Kg		11/21/22 09:48	11/21/22 11:40	1
m-Xylene & p-Xylene	<0.00400	U	0.00400		mg/Kg		11/21/22 09:48	11/21/22 11:40	1
o-Xylene	<0.00200	U	0.00200		mg/Kg		11/21/22 09:48	11/21/22 11:40	1
Xylenes, Total	<0.00400	U	0.00400		mg/Kg		11/21/22 09:48	11/21/22 11:40	1

Surrogate	MB %Recovery	MB Qualifier	MB Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		70 - 130	11/21/22 09:48	11/21/22 11:40	1
1,4-Difluorobenzene (Surr)	92		70 - 130	11/21/22 09:48	11/21/22 11:40	1

## Method: 8015B NM - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 880-39516/1-A

Matrix: Solid

Analysis Batch: 39567

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 08:37	1

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: MB 880-39516/1-A

Matrix: Solid

Analysis Batch: 39567

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 39516

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics (Over C10-C28)	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 08:37	1
Oil Range Organics (Over C28-C36)	<50.0	U	50.0		mg/Kg		11/14/22 14:27	11/15/22 08:37	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
1-Chlorooctane	107		70 - 130				11/14/22 14:27	11/15/22 08:37	1
o-Terphenyl	110		70 - 130				11/14/22 14:27	11/15/22 08:37	1

Lab Sample ID: LCS 880-39516/2-A

Matrix: Solid

Analysis Batch: 39567

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 39516

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	1000	801.1		mg/Kg		80	70 - 130
Diesel Range Organics (Over C10-C28)	1000	802.2		mg/Kg		80	70 - 130
Surrogate	LCS %Recovery	LCS Qualifier	Limits				
1-Chlorooctane	84		70 - 130				
o-Terphenyl	81		70 - 130				

Lab Sample ID: LCSD 880-39516/3-A

Matrix: Solid

Analysis Batch: 39567

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 39516

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	1000	805.9		mg/Kg		81	70 - 130	1	20
Diesel Range Organics (Over C10-C28)	1000	801.6		mg/Kg		80	70 - 130	0	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
1-Chlorooctane	84		70 - 130						
o-Terphenyl	81		70 - 130						

Lab Sample ID: 890-3432-A-1-E MS

Matrix: Solid

Analysis Batch: 39567

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 39516

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	997	1121		mg/Kg		110	70 - 130
Diesel Range Organics (Over C10-C28)	<50.0	U	997	818.0		mg/Kg		80	70 - 130
Surrogate	MS %Recovery	MS Qualifier	Limits						
1-Chlorooctane	88		70 - 130						
o-Terphenyl	75		70 - 130						

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## QC Sample Results

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## Method: 8015B NM - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: 890-3432-A-1-F MSD

Matrix: Solid

Analysis Batch: 39567

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 39516

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Gasoline Range Organics (GRO)-C6-C10	<50.0	U	999	1119		mg/Kg		110	70 - 130	0	20
Diesel Range Organics (Over C10-C28)	<50.0	U	999	826.5		mg/Kg		81	70 - 130	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
1-Chlorooctane	87		70 - 130								
o-Terphenyl	74		70 - 130								

## Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 880-39449/1-A

Matrix: Solid

Analysis Batch: 39642

Client Sample ID: Method Blank

Prep Type: Soluble

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<5.00	U	5.00		mg/Kg			11/16/22 01:26	1

Lab Sample ID: LCS 880-39449/2-A

Matrix: Solid

Analysis Batch: 39642

Client Sample ID: Lab Control Sample

Prep Type: Soluble

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	250	274.3		mg/Kg		110	90 - 110

Lab Sample ID: LCSD 880-39449/3-A

Matrix: Solid

Analysis Batch: 39642

Client Sample ID: Lab Control Sample Dup

Prep Type: Soluble

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	250	274.5		mg/Kg		110	90 - 110	0	20

Lab Sample ID: 890-3434-5 MS

Matrix: Solid

Analysis Batch: 39642

Client Sample ID: PH16

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Chloride	221		252	478.7		mg/Kg		102	90 - 110

Lab Sample ID: 890-3434-5 MSD

Matrix: Solid

Analysis Batch: 39642

Client Sample ID: PH16

Prep Type: Soluble

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloride	221		252	472.1		mg/Kg		100	90 - 110	1	20

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## GC VOA

## Prep Batch: 39546

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-1	PH11	Total/NA	Solid	5035	
890-3434-2	PH11	Total/NA	Solid	5035	
890-3434-3	PH16	Total/NA	Solid	5035	
890-3434-4	PH16	Total/NA	Solid	5035	
890-3434-5	PH16	Total/NA	Solid	5035	
890-3434-6	PH18	Total/NA	Solid	5035	
890-3434-7	PH18	Total/NA	Solid	5035	
890-3434-8	PH18	Total/NA	Solid	5035	
890-3434-9	PH18	Total/NA	Solid	5035	
MB 880-39546/5-A	Method Blank	Total/NA	Solid	5035	
LCS 880-39546/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 880-39546/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
890-3423-A-1-D MS	Matrix Spike	Total/NA	Solid	5035	
890-3423-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	5035	

## Analysis Batch: 40037

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-1	PH11	Total/NA	Solid	8021B	39546
890-3434-2	PH11	Total/NA	Solid	8021B	39546
890-3434-3	PH16	Total/NA	Solid	8021B	39546
890-3434-4	PH16	Total/NA	Solid	8021B	39546
890-3434-5	PH16	Total/NA	Solid	8021B	39546
890-3434-6	PH18	Total/NA	Solid	8021B	39546
890-3434-7	PH18	Total/NA	Solid	8021B	39546
890-3434-8	PH18	Total/NA	Solid	8021B	39546
890-3434-9	PH18	Total/NA	Solid	8021B	39546
MB 880-39546/5-A	Method Blank	Total/NA	Solid	8021B	39546
MB 880-40068/5-A	Method Blank	Total/NA	Solid	8021B	40068
LCS 880-39546/1-A	Lab Control Sample	Total/NA	Solid	8021B	39546
LCSD 880-39546/2-A	Lab Control Sample Dup	Total/NA	Solid	8021B	39546
890-3423-A-1-D MS	Matrix Spike	Total/NA	Solid	8021B	39546
890-3423-A-1-E MSD	Matrix Spike Duplicate	Total/NA	Solid	8021B	39546

## Prep Batch: 40068

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 880-40068/5-A	Method Blank	Total/NA	Solid	5035	

## Analysis Batch: 40234

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-1	PH11	Total/NA	Solid	Total BTEX	
890-3434-2	PH11	Total/NA	Solid	Total BTEX	
890-3434-3	PH16	Total/NA	Solid	Total BTEX	
890-3434-4	PH16	Total/NA	Solid	Total BTEX	
890-3434-5	PH16	Total/NA	Solid	Total BTEX	
890-3434-6	PH18	Total/NA	Solid	Total BTEX	
890-3434-7	PH18	Total/NA	Solid	Total BTEX	
890-3434-8	PH18	Total/NA	Solid	Total BTEX	
890-3434-9	PH18	Total/NA	Solid	Total BTEX	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## GC Semi VOA

## Prep Batch: 39516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-1	PH11	Total/NA	Solid	8015NM Prep	
890-3434-2	PH11	Total/NA	Solid	8015NM Prep	
890-3434-3	PH16	Total/NA	Solid	8015NM Prep	
890-3434-4	PH16	Total/NA	Solid	8015NM Prep	
890-3434-5	PH16	Total/NA	Solid	8015NM Prep	
890-3434-6	PH18	Total/NA	Solid	8015NM Prep	
890-3434-7	PH18	Total/NA	Solid	8015NM Prep	
890-3434-8	PH18	Total/NA	Solid	8015NM Prep	
890-3434-9	PH18	Total/NA	Solid	8015NM Prep	
MB 880-39516/1-A	Method Blank	Total/NA	Solid	8015NM Prep	
LCS 880-39516/2-A	Lab Control Sample	Total/NA	Solid	8015NM Prep	
LCSD 880-39516/3-A	Lab Control Sample Dup	Total/NA	Solid	8015NM Prep	
890-3432-A-1-E MS	Matrix Spike	Total/NA	Solid	8015NM Prep	
890-3432-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015NM Prep	

## Analysis Batch: 39567

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-1	PH11	Total/NA	Solid	8015B NM	39516
890-3434-2	PH11	Total/NA	Solid	8015B NM	39516
890-3434-3	PH16	Total/NA	Solid	8015B NM	39516
890-3434-4	PH16	Total/NA	Solid	8015B NM	39516
890-3434-5	PH16	Total/NA	Solid	8015B NM	39516
890-3434-6	PH18	Total/NA	Solid	8015B NM	39516
890-3434-7	PH18	Total/NA	Solid	8015B NM	39516
890-3434-8	PH18	Total/NA	Solid	8015B NM	39516
890-3434-9	PH18	Total/NA	Solid	8015B NM	39516
MB 880-39516/1-A	Method Blank	Total/NA	Solid	8015B NM	39516
LCS 880-39516/2-A	Lab Control Sample	Total/NA	Solid	8015B NM	39516
LCSD 880-39516/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B NM	39516
890-3432-A-1-E MS	Matrix Spike	Total/NA	Solid	8015B NM	39516
890-3432-A-1-F MSD	Matrix Spike Duplicate	Total/NA	Solid	8015B NM	39516

## Analysis Batch: 39646

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-1	PH11	Total/NA	Solid	8015 NM	
890-3434-2	PH11	Total/NA	Solid	8015 NM	
890-3434-3	PH16	Total/NA	Solid	8015 NM	
890-3434-4	PH16	Total/NA	Solid	8015 NM	
890-3434-5	PH16	Total/NA	Solid	8015 NM	
890-3434-6	PH18	Total/NA	Solid	8015 NM	
890-3434-7	PH18	Total/NA	Solid	8015 NM	
890-3434-8	PH18	Total/NA	Solid	8015 NM	
890-3434-9	PH18	Total/NA	Solid	8015 NM	

## HPLC/IC

## Leach Batch: 39449

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-1	PH11	Soluble	Solid	DI Leach	
890-3434-2	PH11	Soluble	Solid	DI Leach	
890-3434-3	PH16	Soluble	Solid	DI Leach	

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## QC Association Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

## HPLC/IC (Continued)

## Leach Batch: 39449 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-4	PH16	Soluble	Solid	DI Leach	
890-3434-5	PH16	Soluble	Solid	DI Leach	
890-3434-6	PH18	Soluble	Solid	DI Leach	
890-3434-7	PH18	Soluble	Solid	DI Leach	
890-3434-8	PH18	Soluble	Solid	DI Leach	
890-3434-9	PH18	Soluble	Solid	DI Leach	
MB 880-39449/1-A	Method Blank	Soluble	Solid	DI Leach	
LCS 880-39449/2-A	Lab Control Sample	Soluble	Solid	DI Leach	
LCSD 880-39449/3-A	Lab Control Sample Dup	Soluble	Solid	DI Leach	
890-3434-5 MS	PH16	Soluble	Solid	DI Leach	
890-3434-5 MSD	PH16	Soluble	Solid	DI Leach	

## Analysis Batch: 39642

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
890-3434-1	PH11	Soluble	Solid	300.0	39449
890-3434-2	PH11	Soluble	Solid	300.0	39449
890-3434-3	PH16	Soluble	Solid	300.0	39449
890-3434-4	PH16	Soluble	Solid	300.0	39449
890-3434-5	PH16	Soluble	Solid	300.0	39449
890-3434-6	PH18	Soluble	Solid	300.0	39449
890-3434-7	PH18	Soluble	Solid	300.0	39449
890-3434-8	PH18	Soluble	Solid	300.0	39449
890-3434-9	PH18	Soluble	Solid	300.0	39449
MB 880-39449/1-A	Method Blank	Soluble	Solid	300.0	39449
LCS 880-39449/2-A	Lab Control Sample	Soluble	Solid	300.0	39449
LCSD 880-39449/3-A	Lab Control Sample Dup	Soluble	Solid	300.0	39449
890-3434-5 MS	PH16	Soluble	Solid	300.0	39449
890-3434-5 MSD	PH16	Soluble	Solid	300.0	39449

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH11

Lab Sample ID: 890-3434-1

Date Collected: 11/10/22 09:10

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 03:32	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			39646	11/15/22 16:29	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 14:59	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		1			39642	11/16/22 02:40	CH	EET MID

Client Sample ID: PH11

Lab Sample ID: 890-3434-2

Date Collected: 11/10/22 09:20

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 03:53	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			39646	11/16/22 09:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 16:05	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		1			39642	11/16/22 02:46	CH	EET MID

Client Sample ID: PH16

Lab Sample ID: 890-3434-3

Date Collected: 11/10/22 09:40

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 04:13	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			39646	11/16/22 09:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.00 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 16:26	AJ	EET MID
Soluble	Leach	DI Leach			4.99 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		1			39642	11/16/22 02:51	CH	EET MID

Client Sample ID: PH16

Lab Sample ID: 890-3434-4

Date Collected: 11/10/22 09:50

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.01 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 04:34	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID

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## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH16

Lab Sample ID: 890-3434-4

Date Collected: 11/10/22 09:50

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8015 NM		1			39646	11/16/22 09:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 16:47	AJ	EET MID
Soluble	Leach	DI Leach			5.02 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		1			39642	11/16/22 02:57	CH	EET MID

Client Sample ID: PH16

Lab Sample ID: 890-3434-5

Date Collected: 11/10/22 10:00

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.97 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 04:54	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			39646	11/16/22 09:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 17:08	AJ	EET MID
Soluble	Leach	DI Leach			4.97 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		1			39642	11/16/22 03:02	CH	EET MID

Client Sample ID: PH18

Lab Sample ID: 890-3434-6

Date Collected: 11/10/22 10:20

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.99 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 05:15	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			39646	11/16/22 09:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.01 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 17:28	AJ	EET MID
Soluble	Leach	DI Leach			4.98 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		10			39642	11/16/22 03:19	CH	EET MID

Client Sample ID: PH18

Lab Sample ID: 890-3434-7

Date Collected: 11/10/22 10:30

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			4.98 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 05:36	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			39646	11/16/22 09:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.02 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 17:49	AJ	EET MID

Eurofins Carlsbad

## Lab Chronicle

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Client Sample ID: PH18

Lab Sample ID: 890-3434-7

Date Collected: 11/10/22 10:30

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Soluble	Leach	DI Leach			4.96 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		1			39642	11/16/22 03:25	CH	EET MID

Client Sample ID: PH18

Lab Sample ID: 890-3434-8

Date Collected: 11/10/22 10:40

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.02 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 05:56	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			39646	11/16/22 09:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.03 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 18:10	AJ	EET MID
Soluble	Leach	DI Leach			5.03 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		1			39642	11/16/22 03:42	CH	EET MID

Client Sample ID: PH18

Lab Sample ID: 890-3434-9

Date Collected: 11/10/22 10:50

Matrix: Solid

Date Received: 11/11/22 10:04

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			5.03 g	5 mL	39546	11/14/22 15:47	MNR	EET MID
Total/NA	Analysis	8021B		1	5 mL	5 mL	40037	11/22/22 06:17	SM	EET MID
Total/NA	Analysis	Total BTEX		1			40234	11/22/22 15:30	SM	EET MID
Total/NA	Analysis	8015 NM		1			39646	11/16/22 09:14	AJ	EET MID
Total/NA	Prep	8015NM Prep			10.04 g	10 mL	39516	11/14/22 14:27	DM	EET MID
Total/NA	Analysis	8015B NM		1	1 uL	1 uL	39567	11/15/22 18:31	AJ	EET MID
Soluble	Leach	DI Leach			4.95 g	50 mL	39449	11/14/22 11:43	KS	EET MID
Soluble	Analysis	300.0		5			39642	11/16/22 03:48	CH	EET MID

## Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

Eurofins Carlsbad



Accreditation/Certification Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Laboratory: Eurofins Midland

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704400-22-24	06-30-23

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
8015 NM		Solid	Total TPH
Total BTEX		Solid	Total BTEX

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

## Method Summary

Client: Ensolum

Job ID: 890-3434-1

Project/Site: Pecos Fed 1Y

SDG: Eddy County NM

Method	Method Description	Protocol	Laboratory
8021B	Volatile Organic Compounds (GC)	SW846	EET MID
Total BTEX	Total BTEX Calculation	TAL SOP	EET MID
8015 NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
8015B NM	Diesel Range Organics (DRO) (GC)	SW846	EET MID
300.0	Anions, Ion Chromatography	MCAWW	EET MID
5035	Closed System Purge and Trap	SW846	EET MID
8015NM Prep	Microextraction	SW846	EET MID
DI Leach	Deionized Water Leaching Procedure	ASTM	EET MID

## Protocol References:

ASTM = ASTM International

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL SOP = TestAmerica Laboratories, Standard Operating Procedure

## Laboratory References:

EET MID = Eurofins Midland, 1211 W. Florida Ave, Midland, TX 79701, TEL (432)704-5440

## Sample Summary

Client: Ensolum  
Project/Site: Pecos Fed 1Y

Job ID: 890-3434-1  
SDG: Eddy County NM

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Depth
890-3434-1	PH11	Solid	11/10/22 09:10	11/11/22 10:04	4'
890-3434-2	PH11	Solid	11/10/22 09:20	11/11/22 10:04	8'
890-3434-3	PH16	Solid	11/10/22 09:40	11/11/22 10:04	4'
890-3434-4	PH16	Solid	11/10/22 09:50	11/11/22 10:04	6'
890-3434-5	PH16	Solid	11/10/22 10:00	11/11/22 10:04	8'
890-3434-6	PH18	Solid	11/10/22 10:20	11/11/22 10:04	0.5'
890-3434-7	PH18	Solid	11/10/22 10:30	11/11/22 10:04	4'
890-3434-8	PH18	Solid	11/10/22 10:40	11/11/22 10:04	6'
890-3434-9	PH18	Solid	11/10/22 10:50	11/11/22 10:04	8'



Environment Testing  
Xenco

## Chain of Custody

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300  
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334  
EL Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296  
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Work Order No: \_\_\_\_\_

www.xenco.com Page 1 of 1

Project Manager:	Ben Belill	Bill to: (if different)	Jim Raley
Company Name:	Ensolum	Company Name:	WPX
Address:	3122 National Parks HWY	Address:	5315 Buena Vista Dr.
City, State ZIP:	Carlsbad, NM 88220	City, State ZIP:	Carlsbad, NM 88220
Phone:	989-854-0852	Email:	BBelill@Ensolum.com, jim.raley@dyn.com

Work Order Comments	
Program:	UST/PST <input type="checkbox"/> PRP <input type="checkbox"/> Brownfields <input type="checkbox"/> RRC <input type="checkbox"/> Superfund <input type="checkbox"/>
State of Project:	
Reporting:	Level II <input type="checkbox"/> Level III <input type="checkbox"/> PST/UST <input type="checkbox"/> TRRP <input type="checkbox"/> Level IV <input type="checkbox"/>
Deliverables:	EDD <input type="checkbox"/> ADaPT <input type="checkbox"/> Other: _____

Project Name:		Turn Around		ANALYSIS REQUEST										Preservative Codes				
Project Number:	03A1987014	<input checked="" type="checkbox"/> Routine	<input type="checkbox"/> Rush	Pres. Code											None: NO	DI Water: H <sub>2</sub> O		
Project Location:	Eddy County, NM	Due Date:	5 Day TAT	Parameters	CHLORIDES (EPA: 300.0)	TPH (8015)	BTEX (8021)								Cool: Cool	MeOH: Me		
Sampler's Name:	Yocoly Edyte Konan	TAT starts the day received by the lab, if received by 4:30pm													HCL: HC	HNO <sub>3</sub> : HN		
CC #:	1061084701														H <sub>2</sub> SO <sub>4</sub> : H <sub>2</sub>	NaOH: Na		
<b>SAMPLE RECEIPT</b>		Temp Blank:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												Wet Ice:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	H <sub>3</sub> PO <sub>4</sub> : HP	
Samples Received Intact:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Thermometer ID:	TMM-601												NaHSO <sub>4</sub> : NABIS			
Cooler Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Correction Factor:	-0.2		Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub> : NaSO <sub>3</sub>													
Sample Custody Seals:	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	Temperature Reading:	5.6		Zn Acetate+NaOH: Zn													
Total Containers:		Corrected Temperature:	5.4		NaOH+Ascorbic Acid: SAPC													
Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Grab/Comp	# of Cont									Sample Comments			
PH11	S	11.10.22	9:10	4'	G	1	X	X	X									
PH11	S	11.10.22	9:20	8'	G	1	X	X	X									
PH16	S	11.10.22	9:40	4'	G	1	X	X	X									
PH16	S	11.10.22	9:50	6'	G	1	X	X	X									
PH16	S	11.10.22	10:00	8'	G	1	X	X	X									
PH18	S	11.10.22	10:20	0.5'	G	1	X	X	X									
PH18	S	11.10.22	10:30	4'	G	1	X	X	X									
PH18	S	11.10.22	10:40	6'	G	1	X	X	X									
PH18	S	11.10.22	10:50	8'	G	1	X	X	X									

<b>Total 200.7 / 6010</b>	<b>200.8 / 6020:</b>	8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO <sub>2</sub> Na Sr Ti Sn U V Zn
Circle Method(s) and Metal(s) to be analyzed		TCLP / SPLP 6010: 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245.1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$5 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
1		11/11/22 1009			
3					
5					

Revised Date: 08/25/2020 Rev: 2020.2

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3434-1

SDG Number: Eddy County NM

Login Number: 3434

List Number: 1

Creator: Stutzman, Amanda

List Source: Eurofins Carlsbad

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	N/A	Refer to Job Narrative for details.
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

## Login Sample Receipt Checklist

Client: Ensolum

Job Number: 890-3434-1

SDG Number: Eddy County NM

Login Number: 3434

List Number: 2

Creator: Rodriguez, Leticia

List Source: Eurofins Midland

List Creation: 11/14/22 08:39 AM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	

**Eurofins Carlsbad****Job Notes**

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

**Authorization**

Generated  
11/22/2022 3:23:06 PM

Authorized for release by  
Jessica Kramer, Project Manager  
[Jessica.Kramer@et.eurofinsus.com](mailto:Jessica.Kramer@et.eurofinsus.com)  
(432)704-5440



Report to:  
Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

WPX Energy - Carlsbad

Project Name: Pecos Federal #001Y

Work Order: E303119

Job Number: 01058-0007

Received: 3/29/2023

Revision: 2

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/4/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 4/4/23

Gilbert Moreno  
5315 Buena Vista Dr  
Carlsbad, NM 88220



Project Name: Pecos Federal #001Y  
Workorder: E303119  
Date Received: 3/29/2023 6:45:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/29/2023 6:45:00AM, under the Project Name: Pecos Federal #001Y.

The analytical test results summarized in this report with the Project Name: Pecos Federal #001Y apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 10:12

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS01 7'	E303119-01A	Soil	03/24/23	03/29/23	Glass Jar, 4 oz.
FS02 7'	E303119-02A	Soil	03/24/23	03/29/23	Glass Jar, 4 oz.
FS03 7'	E303119-03A	Soil	03/24/23	03/29/23	Glass Jar, 4 oz.
FS04 7'	E303119-04A	Soil	03/24/23	03/29/23	Glass Jar, 4 oz.
FS05 7'	E303119-05A	Soil	03/24/23	03/29/23	Glass Jar, 4 oz.



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:12:47AM

FS01 7'

E303119-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Benzene	ND	0.0250	1	03/29/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/30/23	
Toluene	ND	0.0250	1	03/29/23	03/30/23	
o-Xylene	ND	0.0250	1	03/29/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene	99.5 %	70-130		03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	95.6 %	70-130		03/29/23	03/30/23	
Surrogate: Toluene-d8	99.7 %	70-130		03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene	99.5 %	70-130		03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	95.6 %	70-130		03/29/23	03/30/23	
Surrogate: Toluene-d8	99.7 %	70-130		03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313051
Diesel Range Organics (C10-C28)	ND	25.0	1	03/30/23	03/31/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/30/23	03/31/23	
Surrogate: n-Nonane	100 %	50-200		03/30/23	03/31/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	270	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:12:47AM

FS02 7'

E303119-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Benzene	ND	0.0250	1	03/29/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/30/23	
Toluene	ND	0.0250	1	03/29/23	03/30/23	
o-Xylene	ND	0.0250	1	03/29/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene		103 %	70-130	03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4		98.0 %	70-130	03/29/23	03/30/23	
Surrogate: Toluene-d8		102 %	70-130	03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene		103 %	70-130	03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4		98.0 %	70-130	03/29/23	03/30/23	
Surrogate: Toluene-d8		102 %	70-130	03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313051
Diesel Range Organics (C10-C28)	ND	25.0	1	03/30/23	03/31/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/30/23	03/31/23	
Surrogate: n-Nonane		103 %	50-200	03/30/23	03/31/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	331	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:12:47AM

FS03 7'

E303119-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Benzene	ND	0.0250	1	03/29/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/30/23	
Toluene	ND	0.0250	1	03/29/23	03/30/23	
o-Xylene	ND	0.0250	1	03/29/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene		100 %	70-130	03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4		95.8 %	70-130	03/29/23	03/30/23	
Surrogate: Toluene-d8		102 %	70-130	03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene		100 %	70-130	03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4		95.8 %	70-130	03/29/23	03/30/23	
Surrogate: Toluene-d8		102 %	70-130	03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313051
Diesel Range Organics (C10-C28)	ND	25.0	1	03/30/23	03/31/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/30/23	03/31/23	
Surrogate: n-Nonane		102 %	50-200	03/30/23	03/31/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	296	20.0	1	03/29/23	03/30/23	





## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:12:47AM

FS04 7'

E303119-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Benzene	ND	0.0250	1	03/29/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/30/23	
Toluene	ND	0.0250	1	03/29/23	03/30/23	
o-Xylene	ND	0.0250	1	03/29/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene	99.6 %	70-130		03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	99.6 %	70-130		03/29/23	03/30/23	
Surrogate: Toluene-d8	100 %	70-130		03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene	99.6 %	70-130		03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	99.6 %	70-130		03/29/23	03/30/23	
Surrogate: Toluene-d8	100 %	70-130		03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313051
Diesel Range Organics (C10-C28)	ND	25.0	1	03/30/23	03/31/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/30/23	03/31/23	
Surrogate: n-Nonane	103 %	50-200		03/30/23	03/31/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	278	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:12:47AM

FS05 7'

E303119-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Benzene	ND	0.0250	1	03/29/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/30/23	
Toluene	ND	0.0250	1	03/29/23	03/30/23	
o-Xylene	ND	0.0250	1	03/29/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene		102 %	70-130	03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4		98.1 %	70-130	03/29/23	03/30/23	
Surrogate: Toluene-d8		101 %	70-130	03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: RKS		Batch: 2313042
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene		102 %	70-130	03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4		98.1 %	70-130	03/29/23	03/30/23	
Surrogate: Toluene-d8		101 %	70-130	03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313051
Diesel Range Organics (C10-C28)	ND	25.0	1	03/30/23	03/31/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/30/23	03/31/23	
Surrogate: n-Nonane		103 %	50-200	03/30/23	03/31/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	302	20.0	1	03/29/23	03/30/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 10:12:47AM

Volatile Organic Compounds by EPA 8260B

Analyst: RKS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313042-BLK1) Prepared: 03/29/23 Analyzed: 03/30/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.474		0.500		94.7	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			

LCS (2313042-BS1) Prepared: 03/29/23 Analyzed: 03/30/23

Benzene	2.24	0.0250	2.50		89.7	70-130			
Ethylbenzene	2.18	0.0250	2.50		87.2	70-130			
Toluene	2.18	0.0250	2.50		87.1	70-130			
o-Xylene	2.22	0.0250	2.50		88.9	70-130			
p,m-Xylene	4.38	0.0500	5.00		87.6	70-130			
Total Xylenes	6.60	0.0250	7.50		88.0	70-130			
Surrogate: Bromofluorobenzene	0.503		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.522		0.500		104	70-130			
Surrogate: Toluene-d8	0.506		0.500		101	70-130			

Matrix Spike (2313042-MS1) Source: E303119-01 Prepared: 03/29/23 Analyzed: 03/30/23

Benzene	2.45	0.0250	2.50	ND	98.2	48-131			
Ethylbenzene	2.33	0.0250	2.50	ND	93.2	45-135			
Toluene	2.34	0.0250	2.50	ND	93.6	48-130			
o-Xylene	2.34	0.0250	2.50	ND	93.6	43-135			
p,m-Xylene	4.61	0.0500	5.00	ND	92.2	43-135			
Total Xylenes	6.95	0.0250	7.50	ND	92.7	43-135			
Surrogate: Bromofluorobenzene	0.487		0.500		97.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.516		0.500		103	70-130			
Surrogate: Toluene-d8	0.500		0.500		100	70-130			

Matrix Spike Dup (2313042-MSD1) Source: E303119-01 Prepared: 03/29/23 Analyzed: 03/30/23

Benzene	2.36	0.0250	2.50	ND	94.2	48-131	4.10	23	
Ethylbenzene	2.30	0.0250	2.50	ND	91.9	45-135	1.45	27	
Toluene	2.30	0.0250	2.50	ND	92.2	48-130	1.55	24	
o-Xylene	2.33	0.0250	2.50	ND	93.2	43-135	0.493	27	
p,m-Xylene	4.56	0.0500	5.00	ND	91.1	43-135	1.17	27	
Total Xylenes	6.89	0.0250	7.50	ND	91.8	43-135	0.940	27	
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.507		0.500		101	70-130			
Surrogate: Toluene-d8	0.499		0.500		99.8	70-130			



## QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 10:12:47AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: RKS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2313042-BLK1)

Prepared: 03/29/23 Analyzed: 03/30/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.474		0.500		94.7	70-130			
Surrogate: Toluene-d8	0.505		0.500		101	70-130			

## LCS (2313042-BS2)

Prepared: 03/29/23 Analyzed: 03/30/23

Gasoline Range Organics (C6-C10)	41.7	20.0	50.0		83.4	70-130			
Surrogate: Bromofluorobenzene	0.497		0.500		99.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.482		0.500		96.4	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			

## Matrix Spike (2313042-MS2)

Source: E303119-01

Prepared: 03/29/23 Analyzed: 03/30/23

Gasoline Range Organics (C6-C10)	42.2	20.0	50.0	ND	84.4	70-130			
Surrogate: Bromofluorobenzene	0.498		0.500		99.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.496		0.500		99.1	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			

## Matrix Spike Dup (2313042-MSD2)

Source: E303119-01

Prepared: 03/29/23 Analyzed: 03/30/23

Gasoline Range Organics (C6-C10)	41.0	20.0	50.0	ND	81.9	70-130	2.95	20	
Surrogate: Bromofluorobenzene	0.495		0.500		98.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.509		0.500		102	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 10:12:47AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2313051-BLK1)					Prepared: 03/30/23 Analyzed: 03/31/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	52.0		50.0		104	50-200			

LCS (2313051-BS1)					Prepared: 03/30/23 Analyzed: 03/31/23				
Diesel Range Organics (C10-C28)	252	25.0	250		101	38-132			
Surrogate: n-Nonane	51.6		50.0		103	50-200			

Matrix Spike (2313051-MS1)					Source: E303119-05		Prepared: 03/30/23 Analyzed: 03/31/23		
Diesel Range Organics (C10-C28)	250	25.0	250	ND	100	38-132			
Surrogate: n-Nonane	49.5		50.0		99.0	50-200			

Matrix Spike Dup (2313051-MSD1)					Source: E303119-05		Prepared: 03/30/23 Analyzed: 03/31/23		
Diesel Range Organics (C10-C28)	246	25.0	250	ND	98.4	38-132	1.67	20	
Surrogate: n-Nonane	49.8		50.0		99.5	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 10:12:47AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313045-BLK1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	ND	20.0							
LCS (2313045-BS1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2313045-MS1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3460	40.0	250	3190	109	80-120			
Matrix Spike Dup (2313045-MSD1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3330	40.0	250	3190	53.7	80-120	4.05	20	M2

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 10:12

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





<b>Client:</b> WPX Permian Energy, LLC		<b>Bill To</b>		<b>Lab Use Only</b>		<b>TAT</b>			<b>EPA Program</b>				
<b>Project:</b> Pecos Federal #001Y		<b>Attention:</b> Jim Raley		<b>Lab WO#</b> E303119		<b>Job Number</b> 0058-0007		1D	2D	3D	Standard	CWA	SDWA
<b>Project Manager:</b> Gilbert Moreno		<b>Address:</b> 5315 Buena Vista Dr.									5 Day TAT		
<b>Address:</b> 3122 National Parks HWY		<b>City, State, Zip:</b> Carlsbad, NM, 88220										RCRA	
<b>City, State, Zip:</b> Carlsbad, NM, 88220		<b>Phone:</b> 575-885-7502											
<b>Phone:</b> 832-541-7719		<b>Email:</b> jim.raley@dmv.com											
<b>Email:</b> devon-team@ensolum.com		<b>Cost Center:</b> 1061084701											
<b>Collected by:</b> Yocoly Edyte Konan		<b>Incident ID:</b> nAPP2208846424											

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft)	TPH GRO/DRO/TORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
10:30	3.24.23	S	1	FS01	1	7'						X		
10:40	3.24.23	S	1	FS02	2	7'						X		
10:50	3.24.23	S	1	FS03	3	7'						X		
11:00	3.24.23	S	1	FS04	4	7'						X		
10:40	3.27.23	S	1	FS05	5	7'						X		

## Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Gilbert Moreno

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature) Yocoly Edyte Konan	Date 03/28/23	Time 09:00	Received by: (Signature) Michelle Campbell	Date 3-28-23	Time 0900	<b>Lab Use Only</b> Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C 40
Relinquished by: (Signature) Michelle Campbell	Date 3-28-23	Time 1600	Received by: (Signature) Lorenz Lein	Date 3-28-23	Time 1700	
Relinquished by: (Signature) Lorenz Lein	Date 3-28-23	Time 2300	Received by: (Signature) Zhen Zhen	Date 03/29/23	Time 6:45	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



envirotech

## Envirotech Analytical Laboratory

Printed: 3/29/2023 9:03:06AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	03/29/23 06:45	Work Order ID:	E303119
Phone:	(539) 573-4018	Date Logged In:	03/29/23 08:01	Logged In By:	Alexa Michaels
Email:	devon-team@ensolum.com	Due Date:	04/04/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

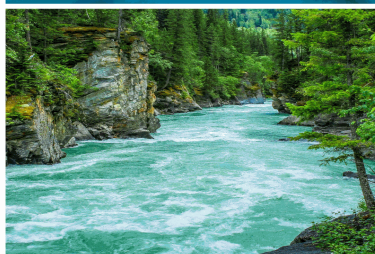
Date



envirotech Inc.

Report to:

Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

WPX Energy - Carlsbad

Project Name: Pecos Federal #001Y

Work Order: E303117

Job Number: 01058-0007

Received: 3/29/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/4/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
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Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.



Date Reported: 4/4/23

Gilbert Moreno  
5315 Buena Vista Dr  
Carlsbad, NM 88220



Project Name: Pecos Federal #001Y  
Workorder: E303117  
Date Received: 3/29/2023 6:45:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/29/2023 6:45:00AM, under the Project Name: Pecos Federal #001Y.

The analytical test results summarized in this report with the Project Name: Pecos Federal #001Y apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 10:05

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW01 0 - 4'	E303117-01A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
SW02 0 - 4'	E303117-02A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
SW03 0 - 4'	E303117-03A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
SW04 0 - 4'	E303117-04A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:05:23AM

SW01 0 - 4'

E303117-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313033
Benzene	ND	0.0250	1	03/28/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/28/23	03/30/23	
Toluene	ND	0.0250	1	03/28/23	03/30/23	
o-Xylene	ND	0.0250	1	03/28/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/28/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/28/23	03/30/23	
Surrogate: Bromofluorobenzene	91.2 %	70-130		03/28/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	91.2 %	70-130		03/28/23	03/30/23	
Surrogate: Toluene-d8	104 %	70-130		03/28/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313033
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/28/23	03/30/23	
Surrogate: Bromofluorobenzene	91.2 %	70-130		03/28/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	91.2 %	70-130		03/28/23	03/30/23	
Surrogate: Toluene-d8	104 %	70-130		03/28/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313037
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/30/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/30/23	
Surrogate: n-Nonane	110 %	50-200		03/29/23	03/30/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313041
Chloride	142	20.0	1	03/29/23	03/30/23	





## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:05:23AM

SW02 0 - 4'

E303117-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313033
Benzene	ND	0.0250	1	03/28/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/28/23	03/30/23	
Toluene	ND	0.0250	1	03/28/23	03/30/23	
o-Xylene	ND	0.0250	1	03/28/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/28/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/28/23	03/30/23	
Surrogate: Bromofluorobenzene	91.6 %	70-130		03/28/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	95.4 %	70-130		03/28/23	03/30/23	
Surrogate: Toluene-d8	104 %	70-130		03/28/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313033
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/28/23	03/30/23	
Surrogate: Bromofluorobenzene	91.6 %	70-130		03/28/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	95.4 %	70-130		03/28/23	03/30/23	
Surrogate: Toluene-d8	104 %	70-130		03/28/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313037
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/30/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/30/23	
Surrogate: n-Nonane	104 %	50-200		03/29/23	03/30/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313041
Chloride	359	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:05:23AM

SW03 0 - 4'

E303117-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313033
Benzene	ND	0.0250	1	03/28/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/28/23	03/30/23	
Toluene	ND	0.0250	1	03/28/23	03/30/23	
o-Xylene	ND	0.0250	1	03/28/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/28/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/28/23	03/30/23	
Surrogate: Bromofluorobenzene	90.6 %	70-130		03/28/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	97.0 %	70-130		03/28/23	03/30/23	
Surrogate: Toluene-d8	104 %	70-130		03/28/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313033
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/28/23	03/30/23	
Surrogate: Bromofluorobenzene	90.6 %	70-130		03/28/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	97.0 %	70-130		03/28/23	03/30/23	
Surrogate: Toluene-d8	104 %	70-130		03/28/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313037
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/30/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/30/23	
Surrogate: n-Nonane	114 %	50-200		03/29/23	03/30/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313041
Chloride	332	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 10:05:23AM

SW04 0 - 4'

E303117-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313033
Benzene	ND	0.0250	1	03/28/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/28/23	03/30/23	
Toluene	ND	0.0250	1	03/28/23	03/30/23	
o-Xylene	ND	0.0250	1	03/28/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/28/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/28/23	03/30/23	
Surrogate: Bromofluorobenzene	89.5 %	70-130		03/28/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	93.0 %	70-130		03/28/23	03/30/23	
Surrogate: Toluene-d8	103 %	70-130		03/28/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2313033
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/28/23	03/30/23	
Surrogate: Bromofluorobenzene	89.5 %	70-130		03/28/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	93.0 %	70-130		03/28/23	03/30/23	
Surrogate: Toluene-d8	103 %	70-130		03/28/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313037
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/30/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/30/23	
Surrogate: n-Nonane	111 %	50-200		03/29/23	03/30/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313041
Chloride	369	20.0	1	03/29/23	03/30/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 10:05:23AM

Volatile Organic Compounds by EPA 8260B

Analyst: SL

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313033-BLK1) Prepared: 03/28/23 Analyzed: 03/30/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.461		0.500		92.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		95.0	70-130			
Surrogate: Toluene-d8	0.517		0.500		103	70-130			

LCS (2313033-BS1) Prepared: 03/28/23 Analyzed: 03/30/23

Benzene	2.23	0.0250	2.50		89.3	70-130			
Ethylbenzene	2.28	0.0250	2.50		91.1	70-130			
Toluene	2.28	0.0250	2.50		91.2	70-130			
o-Xylene	2.31	0.0250	2.50		92.3	70-130			
p,m-Xylene	4.61	0.0500	5.00		92.2	70-130			
Total Xylenes	6.92	0.0250	7.50		92.2	70-130			
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

Matrix Spike (2313033-MS1) Source: E303116-03 Prepared: 03/28/23 Analyzed: 03/30/23

Benzene	2.25	0.0250	2.50	ND	90.1	48-131			
Ethylbenzene	2.32	0.0250	2.50	ND	92.6	45-135			
Toluene	2.30	0.0250	2.50	ND	92.0	48-130			
o-Xylene	2.34	0.0250	2.50	ND	93.4	43-135			
p,m-Xylene	4.64	0.0500	5.00	ND	92.8	43-135			
Total Xylenes	6.98	0.0250	7.50	ND	93.0	43-135			
Surrogate: Bromofluorobenzene	0.496		0.500		99.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.503		0.500		101	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

Matrix Spike Dup (2313033-MSD1) Source: E303116-03 Prepared: 03/28/23 Analyzed: 03/30/23

Benzene	2.16	0.0250	2.50	ND	86.4	48-131	4.15	23	
Ethylbenzene	2.21	0.0250	2.50	ND	88.5	45-135	4.55	27	
Toluene	2.21	0.0250	2.50	ND	88.3	48-130	4.10	24	
o-Xylene	2.23	0.0250	2.50	ND	89.2	43-135	4.58	27	
p,m-Xylene	4.46	0.0500	5.00	ND	89.3	43-135	3.93	27	
Total Xylenes	6.69	0.0250	7.50	ND	89.3	43-135	4.15	27	
Surrogate: Bromofluorobenzene	0.501		0.500		100	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.500		0.500		99.9	70-130			
Surrogate: Toluene-d8	0.513		0.500		103	70-130			



## QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 10:05:23AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2313033-BLK1)

Prepared: 03/28/23 Analyzed: 03/30/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.461		0.500		92.2	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.475		0.500		95.0	70-130			
Surrogate: Toluene-d8	0.517		0.500		103	70-130			

## LCS (2313033-BS2)

Prepared: 03/28/23 Analyzed: 03/30/23

Gasoline Range Organics (C6-C10)	39.8	20.0	50.0		79.6	70-130			
Surrogate: Bromofluorobenzene	0.495		0.500		98.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.493		0.500		98.6	70-130			
Surrogate: Toluene-d8	0.514		0.500		103	70-130			

## Matrix Spike (2313033-MS2)

Source: E303116-03

Prepared: 03/28/23 Analyzed: 03/30/23

Gasoline Range Organics (C6-C10)	44.8	20.0	50.0	ND	89.7	70-130			
Surrogate: Bromofluorobenzene	0.486		0.500		97.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.521		0.500		104	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			

## Matrix Spike Dup (2313033-MSD2)

Source: E303116-03

Prepared: 03/28/23 Analyzed: 03/30/23

Gasoline Range Organics (C6-C10)	39.0	20.0	50.0	ND	78.1	70-130	13.8	20	
Surrogate: Bromofluorobenzene	0.490		0.500		97.9	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.509		0.500		102	70-130			
Surrogate: Toluene-d8	0.508		0.500		102	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 10:05:23AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2313037-BLK1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	56.7		50.0		113	50-200			

LCS (2313037-BS1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Diesel Range Organics (C10-C28)	222	25.0	250		88.8	38-132			
Surrogate: n-Nonane	61.4		50.0		123	50-200			

Matrix Spike (2313037-MS1)					Source: E303116-08		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	270	25.0	250	ND	108	38-132			
Surrogate: n-Nonane	55.4		50.0		111	50-200			

Matrix Spike Dup (2313037-MSD1)					Source: E303116-08		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	251	25.0	250	ND	100	38-132	7.37	20	
Surrogate: n-Nonane	52.5		50.0		105	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 10:05:23AM

Anions by EPA 300.0/9056A

Analyst: RAS

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313041-BLK1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	ND	20.0							
LCS (2313041-BS1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2313041-MS1)					Source: E303109-21		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	285	20.0	250	22.4	105	80-120			
Matrix Spike Dup (2313041-MSD1)					Source: E303109-21		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	282	20.0	250	22.4	104	80-120	0.923	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.





Definitions and Notes

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 10:05

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



<b>Client:</b> WPX Permian Energy, LLC				<b>Bill To</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>EPA Program</b>			
<b>Project:</b> Pecos Federal #001Y				<b>Attention:</b> Jim Raley				<b>Lab WO#</b>		<b>Job Number</b>		1D	2D	3D	Standard	CWA	SDWA		
<b>Project Manager:</b> Gilbert Moreno				<b>Address:</b> 5315 Buena Vista Dr.				<b>E303117</b>		<b>010580007</b>					5 Day TAT				
<b>Address:</b> 3122 National Parks HWY				<b>City, State, Zip:</b> Carlsbad, NM, 88220				<b>Analysis and Method</b>										<b>RCRA</b>	
<b>City, State, Zip:</b> Carlsbad, NM, 88220				<b>Phone:</b> 575-885-7502															
<b>Phone:</b> 832-541-7719				<b>Email:</b> jim.raley@dv.com															
<b>Email:</b> devon-team@ensolum.com				<b>Cost Center:</b> 1061084701															
<b>Collected by:</b> Yocoly Edyte Konan				<b>Incident ID:</b> nAPP2208846424															

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth (ft)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	State	Remarks
9:00	3.27.23	S	1	SW01	1	0 - 4'						X			
9:10	3.27.23	S	1	SW02	2	0 - 4'						X			
9:20	3.27.23	S	1	SW03	3	0 - 4'						X			
9:30	3.27.23	S	1	SW04	4	0 - 4'						X			

## Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Gilbert Moreno

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	Lab Use Only	
Yocoly Edyte Konan		03/28/23	09:00	Michelle Lemay		3-28-23	0900	Received on ice: 0/ N	
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	T1 T2 T3	
Michelle Lemay		3-28-23	1600	Lorenzo Lei		3-28-23	1700		
Relinquished by: (Signature)		Date	Time	Received by: (Signature)		Date	Time	AVG Temp °C	
Lorenzo Lei		3-28-23	2300	Zem Zor		03/29/23	6:45	4.0	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



envirotech

## Envirotech Analytical Laboratory

Printed: 3/29/2023 8:55:36AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	03/29/23 06:45	Work Order ID:	E303117
Phone:	(539) 573-4018	Date Logged In:	03/28/23 14:58	Logged In By:	Caitlin Christian
Email:	devon-team@ensolum.com	Due Date:	04/04/23 17:00 (4 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

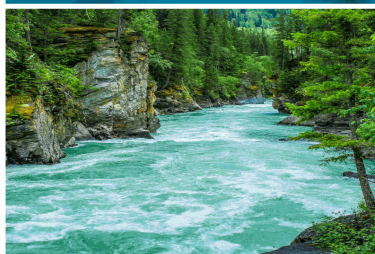
Date



envirotech Inc.

Report to:

Gilbert Moreno



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

WPX Energy - Carlsbad

Project Name: Pecos Federal #001Y

Work Order: E303114

Job Number: 01058-0007

Received: 3/29/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/4/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.



Date Reported: 4/4/23

Gilbert Moreno  
5315 Buena Vista Dr  
Carlsbad, NM 88220



Project Name: Pecos Federal #001Y  
Workorder: E303114  
Date Received: 3/29/2023 6:45:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/29/2023 6:45:00AM, under the Project Name: Pecos Federal #001Y.

The analytical test results summarized in this report with the Project Name: Pecos Federal #001Y apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 08:48

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW05 0 - 7'	E303114-01A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
SW06 0 - 7'	E303114-02A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
SW07 0 - 7'	E303114-03A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
SW08 0 - 7'	E303114-04A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.





## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:48:19AM

SW05 0 - 7'

E303114-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
<i>Surrogate: Bromofluorobenzene</i>	99.8 %	70-130		03/29/23	03/29/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	110 %	70-130		03/29/23	03/29/23	
<i>Surrogate: Toluene-d8</i>	105 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
<i>Surrogate: Bromofluorobenzene</i>	99.8 %	70-130		03/29/23	03/29/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	110 %	70-130		03/29/23	03/29/23	
<i>Surrogate: Toluene-d8</i>	105 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313038
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
<i>Surrogate: n-Nonane</i>	97.5 %	50-200		03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	332	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:48:19AM

SW06 0 - 7'

E303114-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	98.0 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	111 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	106 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	98.0 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	111 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	106 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313038
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
Surrogate: n-Nonane	94.5 %	50-200		03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	378	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:48:19AM

SW07 0 - 7'

E303114-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	97.3 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	110 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	106 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	97.3 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	110 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	106 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313038
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
Surrogate: n-Nonane	100 %	50-200		03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	353	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:48:19AM

SW08 0 - 7'

E303114-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Benzene	ND	0.0250	1	03/29/23	03/30/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/30/23	
Toluene	ND	0.0250	1	03/29/23	03/30/23	
o-Xylene	ND	0.0250	1	03/29/23	03/30/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/30/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene	99.1 %	70-130		03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	110 %	70-130		03/29/23	03/30/23	
Surrogate: Toluene-d8	106 %	70-130		03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/30/23	
Surrogate: Bromofluorobenzene	99.1 %	70-130		03/29/23	03/30/23	
Surrogate: 1,2-Dichloroethane-d4	110 %	70-130		03/29/23	03/30/23	
Surrogate: Toluene-d8	106 %	70-130		03/29/23	03/30/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313038
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/30/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/30/23	
Surrogate: n-Nonane	65.6 %	50-200		03/29/23	03/30/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	360	20.0	1	03/29/23	03/30/23	



## QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:48:19AM

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2313031-BLK1)

Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

## LCS (2313031-BS1)

Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	2.31	0.0250	2.50		92.3	70-130			
Ethylbenzene	2.31	0.0250	2.50		92.2	70-130			
Toluene	2.36	0.0250	2.50		94.3	70-130			
o-Xylene	2.35	0.0250	2.50		93.8	70-130			
p,m-Xylene	4.65	0.0500	5.00		93.0	70-130			
Total Xylenes	7.00	0.0250	7.50		93.3	70-130			
Surrogate: Bromofluorobenzene	0.525		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.562		0.500		112	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

## LCS Dup (2313031-BSD1)

Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	2.33	0.0250	2.50		93.2	70-130	0.992	23	
Ethylbenzene	2.36	0.0250	2.50		94.6	70-130	2.55	27	
Toluene	2.42	0.0250	2.50		96.7	70-130	2.53	24	
o-Xylene	2.38	0.0250	2.50		95.3	70-130	1.50	27	
p,m-Xylene	4.76	0.0500	5.00		95.2	70-130	2.31	27	
Total Xylenes	7.14	0.0250	7.50		95.2	70-130	2.04	27	
Surrogate: Bromofluorobenzene	0.538		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.580		0.500		116	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:48:19AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313031-BLK1) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

LCS (2313031-BS2) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	50.2	20.0	50.0		100	70-130			
Surrogate: Bromofluorobenzene	0.510		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.568		0.500		114	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

LCS Dup (2313031-BSD2) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	48.4	20.0	50.0		96.7	70-130	3.80	20	
Surrogate: Bromofluorobenzene	0.516		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.574		0.500		115	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:48:19AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2313038-BLK1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.5		50.0		109	50-200			

LCS (2313038-BS1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	174	25.0	250		69.5	38-132			
Surrogate: n-Nonane	50.5		50.0		101	50-200			

Matrix Spike (2313038-MS1)					Source: E303114-02		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	186	25.0	250	ND	74.2	38-132			
Surrogate: n-Nonane	49.4		50.0		98.7	50-200			

Matrix Spike Dup (2313038-MSD1)					Source: E303114-02		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	171	25.0	250	ND	68.3	38-132	8.32	20	
Surrogate: n-Nonane	50.1		50.0		100	50-200			





QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:48:19AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313045-BLK1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	ND	20.0							
LCS (2313045-BS1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2313045-MS1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3460	40.0	250	3190	109	80-120			
Matrix Spike Dup (2313045-MSD1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3330	40.0	250	3190	53.7	80-120	4.05	20	M2

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 08:48

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



<b>Client:</b> WPX Permian Energy, LLC				<b>Bill To</b>				<b>Lab Use Only</b>				<b>TAT</b>				<b>EPA Program</b>						
<b>Project:</b> Pecos Federal #001Y				<b>Attention:</b> Jim Raley				<b>Lab WO#</b>		<b>Job Number</b>		1D	2D	3D	Standard	CWA	SDWA					
<b>Project Manager:</b> Gilbert Moreno				<b>Address:</b> 5315 Buena Vista Dr.				<b>E303114</b>		<b>01058-0007</b>					5 Day TAT							
<b>Address:</b> 3122 National Parks HWY				<b>City, State, Zip:</b> Carlsbad, NM, 88220				<b>Analysis and Method</b>										<b>RCRA</b>				
<b>City, State, Zip:</b> Carlsbad, NM, 88220				<b>Phone:</b> 575-885-7502				Depth(ft)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	<b>State</b>						
<b>Phone:</b> 832-541-7719				<b>Email:</b> jim.raley@dvn.com												NM	CO	UT	AZ	TX		
<b>Email:</b> devon-team@ensolum.com				<b>Cost Center:</b> 1061084701																		
<b>Collected by:</b> Yocoly Edyte Konan				<b>Incident ID:</b> nAPP2208846424																		

Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	Depth(ft)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	Remarks
9:40	3.27.23	S	1	SW05	1	0 - 7'						X		
9:50	3.27.23	S	1	SW06	2	0 - 7'						X		
10:00	3.27.23	S	1	SW07	3	0 - 7'						X		
10:10	3.27.23	S	1	SW08	4	0 - 7'						X		

**Additional Instructions:**

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.

Sampled by: Gilbert Moreno

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature) Yocoly Edyte Konan	Date 03/28/23	Time 09:00	Received by: (Signature) Michelle Guzman	Date 3-28-23	Time 0900	<b>Lab Use Only</b> Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N T1 _____ T2 _____ T3 _____ AVG Temp °C <u>4.0</u>
Relinquished by: (Signature) Michelle Guzman	Date 3-28-23	Time 1600	Received by: (Signature) Lorenza	Date 3-28-23	Time 1700	
Relinquished by: (Signature) Lorenza	Date 3-28-23	Time 2300	Received by: (Signature) 21en-3m	Date 03/29/23	Time 6:45	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.

## Envirotech Analytical Laboratory

Printed: 3/29/2023 9:14:16AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	03/29/23 06:45	Work Order ID:	E303114
Phone:	(539) 573-4018	Date Logged In:	03/28/23 14:53	Logged In By:	Caitlin Christian
Email:	devon-team@ensolum.com	Due Date:	04/04/23 17:00 (4 day TAT)		

**Chain of Custody (COC)**

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Courier**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

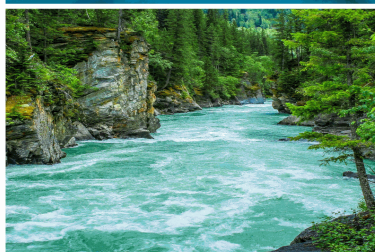
Date



envirotech Inc.

Report to:

Gilbert Moreno



5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

WPX Energy - Carlsbad

Project Name: Pecos Federal #001Y

Work Order: E303111

Job Number: 01058-0007

Received: 3/29/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/4/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.



Date Reported: 4/4/23

Gilbert Moreno  
5315 Buena Vista Dr  
Carlsbad, NM 88220



Project Name: Pecos Federal #001Y  
Workorder: E303111  
Date Received: 3/29/2023 6:45:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/29/2023 6:45:00AM, under the Project Name: Pecos Federal #001Y.

The analytical test results summarized in this report with the Project Name: Pecos Federal #001Y apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 08:41

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW09 0-7'	E303111-01A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:41:54AM

SW09 0-7'

E303111-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	96.3 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	105 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	96.3 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	104 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	105 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313038
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
Surrogate: n-Nonane	100 %	50-200		03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	3190	40.0	2	03/29/23	03/30/23	



## QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:41:54AM

## Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2313031-BLK1)

Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

## LCS (2313031-BS1)

Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	2.31	0.0250	2.50		92.3	70-130			
Ethylbenzene	2.31	0.0250	2.50		92.2	70-130			
Toluene	2.36	0.0250	2.50		94.3	70-130			
o-Xylene	2.35	0.0250	2.50		93.8	70-130			
p,m-Xylene	4.65	0.0500	5.00		93.0	70-130			
Total Xylenes	7.00	0.0250	7.50		93.3	70-130			
Surrogate: Bromofluorobenzene	0.525		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.562		0.500		112	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

## LCS Dup (2313031-BSD1)

Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	2.33	0.0250	2.50		93.2	70-130	0.992	23	
Ethylbenzene	2.36	0.0250	2.50		94.6	70-130	2.55	27	
Toluene	2.42	0.0250	2.50		96.7	70-130	2.53	24	
o-Xylene	2.38	0.0250	2.50		95.3	70-130	1.50	27	
p,m-Xylene	4.76	0.0500	5.00		95.2	70-130	2.31	27	
Total Xylenes	7.14	0.0250	7.50		95.2	70-130	2.04	27	
Surrogate: Bromofluorobenzene	0.538		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.580		0.500		116	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:41:54AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2313031-BLK1) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

LCS (2313031-BS2) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	50.2	20.0	50.0		100	70-130			
Surrogate: Bromofluorobenzene	0.510		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.568		0.500		114	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

LCS Dup (2313031-BSD2) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	48.4	20.0	50.0		96.7	70-130	3.80	20	
Surrogate: Bromofluorobenzene	0.516		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.574		0.500		115	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:41:54AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2313038-BLK1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.5		50.0		109	50-200			

LCS (2313038-BS1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	174	25.0	250		69.5	38-132			
Surrogate: n-Nonane	50.5		50.0		101	50-200			

Matrix Spike (2313038-MS1)					Source: E303114-02		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	186	25.0	250	ND	74.2	38-132			
Surrogate: n-Nonane	49.4		50.0		98.7	50-200			

Matrix Spike Dup (2313038-MSD1)					Source: E303114-02		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	171	25.0	250	ND	68.3	38-132	8.32	20	
Surrogate: n-Nonane	50.1		50.0		100	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:41:54AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313045-BLK1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	ND	20.0							
LCS (2313045-BS1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2313045-MS1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3460	40.0	250	3190	109	80-120			
Matrix Spike Dup (2313045-MSD1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3330	40.0	250	3190	53.7	80-120	4.05	20	M2

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 08:41

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.







## Envirotech Analytical Laboratory

Printed: 3/29/2023 8:57:44AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	03/29/23 06:45	Work Order ID:	E303111
Phone:	(539) 573-4018	Date Logged In:	03/28/23 14:45	Logged In By:	Alexa Michaels
Email:	devon-team@ensolum.com	Due Date:	04/04/23 17:00 (4 day TAT)		

**Chain of Custody (COC)**

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Courier**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Gilbert Moreno



# envirotech

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## Analytical Report

WPX Energy - Carlsbad

Project Name: Pecos Federal #001Y

Work Order: E303112

Job Number: 01058-0007

Received: 3/29/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/4/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 4/4/23



Gilbert Moreno  
5315 Buena Vista Dr  
Carlsbad, NM 88220

Project Name: Pecos Federal #001Y  
Workorder: E303112  
Date Received: 3/29/2023 6:45:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/29/2023 6:45:00AM, under the Project Name: Pecos Federal #001Y.

The analytical test results summarized in this report with the Project Name: Pecos Federal #001Y apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)



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Sample Summary

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 08:43

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
SW10 0-4'	E303112-01A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:43:40AM

SW10 0-4'

E303112-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2313031	
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
<i>Surrogate: Bromofluorobenzene</i>	97.5 %	70-130		03/29/23	03/29/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	107 %	70-130		03/29/23	03/29/23	
<i>Surrogate: Toluene-d8</i>	104 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2313031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
<i>Surrogate: Bromofluorobenzene</i>	97.5 %	70-130		03/29/23	03/29/23	
<i>Surrogate: 1,2-Dichloroethane-d4</i>	107 %	70-130		03/29/23	03/29/23	
<i>Surrogate: Toluene-d8</i>	104 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: JL		Batch: 2313038	
Diesel Range Organics (C10-C28)	ND	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
<i>Surrogate: n-Nonane</i>	103 %	50-200		03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2313045	
Chloride	3150	40.0	2	03/29/23	03/30/23	





QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:43:40AM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313031-BLK1) Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

LCS (2313031-BS1) Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	2.31	0.0250	2.50		92.3	70-130			
Ethylbenzene	2.31	0.0250	2.50		92.2	70-130			
Toluene	2.36	0.0250	2.50		94.3	70-130			
o-Xylene	2.35	0.0250	2.50		93.8	70-130			
p,m-Xylene	4.65	0.0500	5.00		93.0	70-130			
Total Xylenes	7.00	0.0250	7.50		93.3	70-130			
Surrogate: Bromofluorobenzene	0.525		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.562		0.500		112	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

LCS Dup (2313031-BSD1) Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	2.33	0.0250	2.50		93.2	70-130	0.992	23	
Ethylbenzene	2.36	0.0250	2.50		94.6	70-130	2.55	27	
Toluene	2.42	0.0250	2.50		96.7	70-130	2.53	24	
o-Xylene	2.38	0.0250	2.50		95.3	70-130	1.50	27	
p,m-Xylene	4.76	0.0500	5.00		95.2	70-130	2.31	27	
Total Xylenes	7.14	0.0250	7.50		95.2	70-130	2.04	27	
Surrogate: Bromofluorobenzene	0.538		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.580		0.500		116	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			



## QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:43:40AM

## Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2313031-BLK1)

Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

## LCS (2313031-BS2)

Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	50.2	20.0	50.0		100	70-130			
Surrogate: Bromofluorobenzene	0.510		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.568		0.500		114	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

## LCS Dup (2313031-BSD2)

Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	48.4	20.0	50.0		96.7	70-130	3.80	20	
Surrogate: Bromofluorobenzene	0.516		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.574		0.500		115	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:43:40AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2313038-BLK1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.5		50.0		109	50-200			

LCS (2313038-BS1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	174	25.0	250		69.5	38-132			
Surrogate: n-Nonane	50.5		50.0		101	50-200			

Matrix Spike (2313038-MS1)					Source: E303114-02		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	186	25.0	250	ND	74.2	38-132			
Surrogate: n-Nonane	49.4		50.0		98.7	50-200			

Matrix Spike Dup (2313038-MSD1)					Source: E303114-02		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	171	25.0	250	ND	68.3	38-132	8.32	20	
Surrogate: n-Nonane	50.1		50.0		100	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:43:40AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313045-BLK1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	ND	20.0							
LCS (2313045-BS1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2313045-MS1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3460	40.0	250	3190	109	80-120			
Matrix Spike Dup (2313045-MSD1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3330	40.0	250	3190	53.7	80-120	4.05	20	M2

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 08:43

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.





## Envirotech Analytical Laboratory

Printed: 3/29/2023 9:03:55AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	03/29/23 06:45	Work Order ID:	E303112
Phone:	(539) 573-4018	Date Logged In:	03/28/23 14:48	Logged In By:	Alexa Michaels
Email:	devon-team@ensolum.com	Due Date:	04/04/23 17:00 (4 day TAT)		

**Chain of Custody (COC)**

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Courier**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



Report to:  
Gilbert Moreno



# envirotech

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## Analytical Report

WPX Energy - Carlsbad

Project Name: Pecos Federal #001Y

Work Order: E303113

Job Number: 01058-0007

Received: 3/29/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/4/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 4/4/23

Gilbert Moreno  
5315 Buena Vista Dr  
Carlsbad, NM 88220



Project Name: Pecos Federal #001Y  
Workorder: E303113  
Date Received: 3/29/2023 6:45:00AM

Gilbert Moreno,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 3/29/2023 6:45:00AM, under the Project Name: Pecos Federal #001Y.

The analytical test results summarized in this report with the Project Name: Pecos Federal #001Y apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 08:45

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS06 4'	E303113-01A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
FS07 4'	E303113-02A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
FS08 4'	E303113-03A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.
FS09 4'	E303113-04A	Soil	03/27/23	03/29/23	Glass Jar, 2 oz.



Sample Data

WPX Energy - Carlsbad 5315 Buena Vista Dr Carlsbad NM, 88220	Project Name: Pecos Federal #001Y Project Number: 01058-0007 Project Manager: Gilbert Moreno	Reported: 4/4/2023 8:45:18AM
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FS06 4'  
E303113-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2313031	
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	98.1 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	111 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	107 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>	mg/kg	mg/kg	Analyst: IY		Batch: 2313031	
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	98.1 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	111 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	107 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>	mg/kg	mg/kg	Analyst: JL		Batch: 2313038	
Diesel Range Organics (C10-C28)	428	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
Surrogate: n-Nonane	105 %	50-200		03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>	mg/kg	mg/kg	Analyst: BA		Batch: 2313045	
Chloride	834	20.0	1	03/29/23	03/30/23	

## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:45:18AM

FS07 4'

E303113-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	96.7 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	111 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	105 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	96.7 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	111 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	105 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313038
Diesel Range Organics (C10-C28)	307	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
Surrogate: n-Nonane	102 %	50-200		03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	877	20.0	1	03/29/23	03/30/23	



## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:45:18AM

FS08 4'

E303113-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene		102 %	70-130	03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	03/29/23	03/29/23	
Surrogate: Toluene-d8		107 %	70-130	03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene		102 %	70-130	03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4		113 %	70-130	03/29/23	03/29/23	
Surrogate: Toluene-d8		107 %	70-130	03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313038
Diesel Range Organics (C10-C28)	180	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
Surrogate: n-Nonane		105 %	50-200	03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	656	20.0	1	03/29/23	03/30/23	





## Sample Data

WPX Energy - Carlsbad  
5315 Buena Vista Dr  
Carlsbad NM, 88220

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Gilbert Moreno

**Reported:**  
4/4/2023 8:45:18AM

FS09 4'

E303113-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Benzene	ND	0.0250	1	03/29/23	03/29/23	
Ethylbenzene	ND	0.0250	1	03/29/23	03/29/23	
Toluene	ND	0.0250	1	03/29/23	03/29/23	
o-Xylene	ND	0.0250	1	03/29/23	03/29/23	
p,m-Xylene	ND	0.0500	1	03/29/23	03/29/23	
Total Xylenes	ND	0.0250	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	98.7 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	113 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	105 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: IY		Batch: 2313031
Gasoline Range Organics (C6-C10)	ND	20.0	1	03/29/23	03/29/23	
Surrogate: Bromofluorobenzene	98.7 %	70-130		03/29/23	03/29/23	
Surrogate: 1,2-Dichloroethane-d4	113 %	70-130		03/29/23	03/29/23	
Surrogate: Toluene-d8	105 %	70-130		03/29/23	03/29/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2313038
Diesel Range Organics (C10-C28)	250	25.0	1	03/29/23	03/29/23	
Oil Range Organics (C28-C36)	ND	50.0	1	03/29/23	03/29/23	
Surrogate: n-Nonane	102 %	50-200		03/29/23	03/29/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2313045
Chloride	779	20.0	1	03/29/23	03/30/23	



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:45:18AM

Volatile Organic Compounds by EPA 8260B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2313031-BLK1) Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

LCS (2313031-BS1) Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	2.31	0.0250	2.50		92.3	70-130			
Ethylbenzene	2.31	0.0250	2.50		92.2	70-130			
Toluene	2.36	0.0250	2.50		94.3	70-130			
o-Xylene	2.35	0.0250	2.50		93.8	70-130			
p,m-Xylene	4.65	0.0500	5.00		93.0	70-130			
Total Xylenes	7.00	0.0250	7.50		93.3	70-130			
Surrogate: Bromofluorobenzene	0.525		0.500		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.562		0.500		112	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

LCS Dup (2313031-BSD1) Prepared: 03/29/23 Analyzed: 03/29/23

Benzene	2.33	0.0250	2.50		93.2	70-130	0.992	23	
Ethylbenzene	2.36	0.0250	2.50		94.6	70-130	2.55	27	
Toluene	2.42	0.0250	2.50		96.7	70-130	2.53	24	
o-Xylene	2.38	0.0250	2.50		95.3	70-130	1.50	27	
p,m-Xylene	4.76	0.0500	5.00		95.2	70-130	2.31	27	
Total Xylenes	7.14	0.0250	7.50		95.2	70-130	2.04	27	
Surrogate: Bromofluorobenzene	0.538		0.500		108	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.580		0.500		116	70-130			
Surrogate: Toluene-d8	0.512		0.500		102	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:45:18AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313031-BLK1) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.488		0.500		97.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.549		0.500		110	70-130			
Surrogate: Toluene-d8	0.520		0.500		104	70-130			

LCS (2313031-BS2) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	50.2	20.0	50.0		100	70-130			
Surrogate: Bromofluorobenzene	0.510		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.568		0.500		114	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			

LCS Dup (2313031-BSD2) Prepared: 03/29/23 Analyzed: 03/29/23

Gasoline Range Organics (C6-C10)	48.4	20.0	50.0		96.7	70-130	3.80	20	
Surrogate: Bromofluorobenzene	0.516		0.500		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.574		0.500		115	70-130			
Surrogate: Toluene-d8	0.525		0.500		105	70-130			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:45:18AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2313038-BLK1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	54.5		50.0		109	50-200			

LCS (2313038-BS1)					Prepared: 03/29/23 Analyzed: 03/29/23				
Diesel Range Organics (C10-C28)	174	25.0	250		69.5	38-132			
Surrogate: n-Nonane	50.5		50.0		101	50-200			

Matrix Spike (2313038-MS1)					Source: E303114-02		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	186	25.0	250	ND	74.2	38-132			
Surrogate: n-Nonane	49.4		50.0		98.7	50-200			

Matrix Spike Dup (2313038-MSD1)					Source: E303114-02		Prepared: 03/29/23 Analyzed: 03/29/23		
Diesel Range Organics (C10-C28)	171	25.0	250	ND	68.3	38-132	8.32	20	
Surrogate: n-Nonane	50.1		50.0		100	50-200			



QC Summary Data

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
5315 Buena Vista Dr	Project Number:	01058-0007	
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	4/4/2023 8:45:18AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2313045-BLK1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	ND	20.0							
LCS (2313045-BS1)					Prepared: 03/29/23 Analyzed: 03/30/23				
Chloride	251	20.0	250		100	90-110			
Matrix Spike (2313045-MS1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3460	40.0	250	3190	109	80-120			
Matrix Spike Dup (2313045-MSD1)					Source: E303111-01		Prepared: 03/29/23 Analyzed: 03/30/23		
Chloride	3330	40.0	250	3190	53.7	80-120	4.05	20	M2

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

WPX Energy - Carlsbad	Project Name:	Pecos Federal #001Y	
5315 Buena Vista Dr	Project Number:	01058-0007	Reported:
Carlsbad NM, 88220	Project Manager:	Gilbert Moreno	04/04/23 08:45

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: WPX Permian Energy, LLC						Bill To								Lab Use Only							TAT				EPA Program					
Project: Pecos Federal #001Y						Attention: Jim Raley								Lab WO# E393113				Job Number 01058-0007			1D	2D	3D	Standard	CWA	SDWA				
Project Manager: Gilbert Moreno						Address: 5315 Buena Vista Dr.																			5 Day TAT					
Address: 3122 National Parks HWY						City, State, Zip: Carlsbad, NM, 88220								Analysis and Method																RCRA
City, State, Zip: Carlsbad, NM, 88220						Phone: 575-885-7502								Depth(ft)	TPH GRO/DRO/ORO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0	BGDOC NM	BGDOC TX	State								
Phone: 832-541-7719						Email: jim.raley@dm.com																NM	CO	UT	AZ	TX				
Email: devon-team@ensolum.com						Cost Center: 1061084701																								
Collected by: Yocoly Edyte Konan						Incident ID: nAPP2208846424																Remarks								
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID			Lab Number																							
10:50	3.27.23	S	1	FS06			1	4'								X														
11:00	3.27.23	S	1	FS07			2	4'								X														
11:10	3.27.23	S	1	FS08			3	4'								X														
11:20	3.27.23	S	1	FS09			4	4'								X														
<div style="text-align: center;">03-28-23 <i>[Signature]</i></div>																														
Additional Instructions:																														
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Gilbert Moreno												Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.																		
Relinquished by: (Signature) Yocoly Edyte Konan			Date 03/28/23		Time 09:00		Received by: (Signature) Michelle Cuyler			Date 3-28-23		Time 0900		Lab Use Only Received on ice: Y / N																
Relinquished by: (Signature) Michelle Cuyler			Date 3-28-23		Time 1600		Received by: (Signature) Lorenzoni			Date 3-28-23		Time 1700		T1 _____ T2 _____ T3 _____																
Relinquished by: (Signature) Lorenzoni			Date 3-28-23		Time 2300		Received by: (Signature) [Signature]			Date 03/29/23		Time 6:45		AVG Temp °C 4.0																
Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____												Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																		
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																														



envirotech



## Envirotech Analytical Laboratory

Printed: 3/29/2023 9:09:39AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	WPX Energy - Carlsbad	Date Received:	03/29/23 06:45	Work Order ID:	E303113
Phone:	(539) 573-4018	Date Logged In:	03/28/23 14:49	Logged In By:	Caitlin Christian
Email:	devon-team@ensolum.com	Due Date:	04/04/23 17:00 (4 day TAT)		

**Chain of Custody (COC)**

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Courier**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? Yes

**Sample Preservation**

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.

Report to:  
Ashley Giovengo



5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: Pecos Federal #001Y

Work Order: E304065

Job Number: 01058-0007

Received: 4/13/2023

Revision: 2

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/19/23

Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 4/19/23



Ashley Giovengo  
6488 7 Rivers Hwy  
Artesia, NM 88210

Project Name: Pecos Federal #001Y  
Workorder: E304065  
Date Received: 4/13/2023 8:15:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 4/13/2023 8:15:00AM, under the Project Name: Pecos Federal #001Y.

The analytical test results summarized in this report with the Project Name: Pecos Federal #001Y apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	04/19/23 08:12

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS06 (@ 6')	E304065-01A	Soil	04/11/23	04/13/23	Glass Jar, 2 oz.
FS07 (@ 6')	E304065-02A	Soil	04/11/23	04/13/23	Glass Jar, 2 oz.
FS08 (@ 6')	E304065-03A	Soil	04/11/23	04/13/23	Glass Jar, 2 oz.
FS09 (@ 6')	E304065-04A	Soil	04/11/23	04/13/23	Glass Jar, 2 oz.
SW11 (@' - 6')	E304065-05A	Soil	04/11/23	04/13/23	Glass Jar, 2 oz.
SW12 (@ 0' - 6')	E304065-06A	Soil	04/11/23	04/13/23	Glass Jar, 2 oz.



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
4/19/2023 8:12:55AM

## FS06 (@ 6')

## E304065-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Benzene	ND	0.0250	1	04/13/23	04/13/23	
Ethylbenzene	ND	0.0250	1	04/13/23	04/13/23	
Toluene	ND	0.0250	1	04/13/23	04/13/23	
o-Xylene	ND	0.0250	1	04/13/23	04/13/23	
p,m-Xylene	ND	0.0500	1	04/13/23	04/13/23	
Total Xylenes	ND	0.0250	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	99.0 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	103 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	99.0 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	102 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	103 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2315064
Diesel Range Organics (C10-C28)	ND	25.0	1	04/13/23	04/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/13/23	04/13/23	
Surrogate: n-Nonane	103 %	50-200		04/13/23	04/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2315066
Chloride	375	200	10	04/13/23	04/13/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
4/19/2023 8:12:55AM

FS07 (@ 6')

E304065-02

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Benzene	ND	0.0250	1	04/13/23	04/13/23	
Ethylbenzene	ND	0.0250	1	04/13/23	04/13/23	
Toluene	ND	0.0250	1	04/13/23	04/13/23	
o-Xylene	ND	0.0250	1	04/13/23	04/13/23	
p,m-Xylene	ND	0.0500	1	04/13/23	04/13/23	
Total Xylenes	ND	0.0250	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	97.3 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	99.7 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	104 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	97.3 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	99.7 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	104 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2315064
Diesel Range Organics (C10-C28)	40.0	25.0	1	04/13/23	04/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/13/23	04/13/23	
Surrogate: n-Nonane	101 %	50-200		04/13/23	04/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2315066
Chloride	486	200	10	04/13/23	04/13/23	





## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
4/19/2023 8:12:55AM

FS08 (@ 6')

E304065-03

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Benzene	ND	0.0250	1	04/13/23	04/13/23	
Ethylbenzene	ND	0.0250	1	04/13/23	04/13/23	
Toluene	ND	0.0250	1	04/13/23	04/13/23	
o-Xylene	ND	0.0250	1	04/13/23	04/13/23	
p,m-Xylene	ND	0.0500	1	04/13/23	04/13/23	
Total Xylenes	ND	0.0250	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	97.4 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	102 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	97.4 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	102 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2315064
Diesel Range Organics (C10-C28)	ND	25.0	1	04/13/23	04/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/13/23	04/13/23	
Surrogate: n-Nonane	101 %	50-200		04/13/23	04/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2315066
Chloride	411	400	20	04/13/23	04/13/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
4/19/2023 8:12:55AM

FS09 (@ 6')

E304065-04

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Benzene	ND	0.0250	1	04/13/23	04/13/23	
Ethylbenzene	ND	0.0250	1	04/13/23	04/13/23	
Toluene	ND	0.0250	1	04/13/23	04/13/23	
o-Xylene	ND	0.0250	1	04/13/23	04/13/23	
p,m-Xylene	ND	0.0500	1	04/13/23	04/13/23	
Total Xylenes	ND	0.0250	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	97.6 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	101 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	97.6 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	101 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	101 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2315064
Diesel Range Organics (C10-C28)	ND	25.0	1	04/13/23	04/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/13/23	04/13/23	
Surrogate: n-Nonane	102 %	50-200		04/13/23	04/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2315066
Chloride	631	20.0	1	04/13/23	04/13/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
4/19/2023 8:12:55AM

SW11 (@' - 6')

E304065-05

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Benzene	ND	0.0250	1	04/13/23	04/13/23	
Ethylbenzene	ND	0.0250	1	04/13/23	04/13/23	
Toluene	ND	0.0250	1	04/13/23	04/13/23	
o-Xylene	ND	0.0250	1	04/13/23	04/13/23	
p,m-Xylene	ND	0.0500	1	04/13/23	04/13/23	
Total Xylenes	ND	0.0250	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	93.8 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	98.3 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	102 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	93.8 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	98.3 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	102 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: JL		Batch: 2315064
Diesel Range Organics (C10-C28)	ND	25.0	1	04/13/23	04/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/13/23	04/13/23	
Surrogate: n-Nonane	106 %	50-200		04/13/23	04/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2315066
Chloride	525	20.0	1	04/13/23	04/13/23	



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
4/19/2023 8:12:55AM

SW12 (@ 0' - 6')

E304065-06

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organic Compounds by EPA 8260B</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Benzene	ND	0.0250	1	04/13/23	04/13/23	
Ethylbenzene	ND	0.0250	1	04/13/23	04/13/23	
Toluene	ND	0.0250	1	04/13/23	04/13/23	
o-Xylene	ND	0.0250	1	04/13/23	04/13/23	
p,m-Xylene	ND	0.0500	1	04/13/23	04/13/23	
Total Xylenes	ND	0.0250	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	93.3 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	98.1 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	103 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg		Analyst: SL		Batch: 2315063
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/13/23	04/13/23	
Surrogate: Bromofluorobenzene	93.3 %	70-130		04/13/23	04/13/23	
Surrogate: 1,2-Dichloroethane-d4	98.1 %	70-130		04/13/23	04/13/23	
Surrogate: Toluene-d8	103 %	70-130		04/13/23	04/13/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg		Analyst: RAS		Batch: 2315064
Diesel Range Organics (C10-C28)	ND	25.0	1	04/13/23	04/13/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/13/23	04/13/23	
Surrogate: n-Nonane	105 %	50-200		04/13/23	04/13/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg		Analyst: BA		Batch: 2315066
Chloride	400	100	5	04/13/23	04/13/23	



## QC Summary Data

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/19/2023 8:12:55AM

## Volatile Organic Compounds by EPA 8260B

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2315063-BLK1)

Prepared: 04/13/23 Analyzed: 04/13/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: Bromofluorobenzene	0.508		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.483		0.500		96.6	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			

## LCS (2315063-BS1)

Prepared: 04/13/23 Analyzed: 04/13/23

Benzene	2.37	0.0250	2.50		94.8	70-130			
Ethylbenzene	2.32	0.0250	2.50		93.0	70-130			
Toluene	2.31	0.0250	2.50		92.3	70-130			
o-Xylene	2.41	0.0250	2.50		96.6	70-130			
p,m-Xylene	4.77	0.0500	5.00		95.3	70-130			
Total Xylenes	7.18	0.0250	7.50		95.8	70-130			
Surrogate: Bromofluorobenzene	0.493		0.500		98.5	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.498		0.500		99.6	70-130			
Surrogate: Toluene-d8	0.498		0.500		99.5	70-130			

## Matrix Spike (2315063-MS1)

Source: E304065-04

Prepared: 04/13/23 Analyzed: 04/13/23

Benzene	2.44	0.0250	2.50	ND	97.7	48-131			
Ethylbenzene	2.38	0.0250	2.50	ND	95.1	45-135			
Toluene	2.40	0.0250	2.50	ND	95.9	48-130			
o-Xylene	2.48	0.0250	2.50	ND	99.3	43-135			
p,m-Xylene	4.89	0.0500	5.00	ND	97.8	43-135			
Total Xylenes	7.37	0.0250	7.50	ND	98.3	43-135			
Surrogate: Bromofluorobenzene	0.491		0.500		98.1	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.492		0.500		98.3	70-130			
Surrogate: Toluene-d8	0.504		0.500		101	70-130			

## Matrix Spike Dup (2315063-MSD1)

Source: E304065-04

Prepared: 04/13/23 Analyzed: 04/13/23

Benzene	2.44	0.0250	2.50	ND	97.6	48-131	0.164	23	
Ethylbenzene	2.42	0.0250	2.50	ND	96.8	45-135	1.73	27	
Toluene	2.43	0.0250	2.50	ND	97.2	48-130	1.31	24	
o-Xylene	2.50	0.0250	2.50	ND	100	43-135	0.762	27	
p,m-Xylene	4.92	0.0500	5.00	ND	98.5	43-135	0.662	27	
Total Xylenes	7.43	0.0250	7.50	ND	99.0	43-135	0.696	27	
Surrogate: Bromofluorobenzene	0.497		0.500		99.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/19/2023 8:12:55AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: SL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2315063-BLK1) Prepared: 04/13/23 Analyzed: 04/13/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: Bromofluorobenzene	0.508		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.483		0.500		96.6	70-130			
Surrogate: Toluene-d8	0.507		0.500		101	70-130			

LCS (2315063-BS2) Prepared: 04/13/23 Analyzed: 04/13/23

Gasoline Range Organics (C6-C10)	47.6	20.0	50.0		95.2	70-130			
Surrogate: Bromofluorobenzene	0.509		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.494		0.500		98.7	70-130			
Surrogate: Toluene-d8	0.515		0.500		103	70-130			

Matrix Spike (2315063-MS2) Source: E304065-04 Prepared: 04/13/23 Analyzed: 04/13/23

Gasoline Range Organics (C6-C10)	49.2	20.0	50.0	ND	98.3	70-130			
Surrogate: Bromofluorobenzene	0.510		0.500		102	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.499		0.500		99.7	70-130			
Surrogate: Toluene-d8	0.503		0.500		101	70-130			

Matrix Spike Dup (2315063-MSD2) Source: E304065-04 Prepared: 04/13/23 Analyzed: 04/13/23

Gasoline Range Organics (C6-C10)	47.3	20.0	50.0	ND	94.6	70-130	3.85	20	
Surrogate: Bromofluorobenzene	0.505		0.500		101	70-130			
Surrogate: 1,2-Dichloroethane-d4	0.486		0.500		97.1	70-130			
Surrogate: Toluene-d8	0.521		0.500		104	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/19/2023 8:12:55AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: RAS

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2315064-BLK1)					Prepared: 04/13/23 Analyzed: 04/13/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	53.4		50.0		107	50-200			

LCS (2315064-BS1)					Prepared: 04/13/23 Analyzed: 04/13/23				
Diesel Range Organics (C10-C28)	259	25.0	250		104	38-132			
Surrogate: n-Nonane	51.2		50.0		102	50-200			

Matrix Spike (2315064-MS1)					Source: E304065-06		Prepared: 04/13/23 Analyzed: 04/13/23		
Diesel Range Organics (C10-C28)	270	25.0	250	ND	108	38-132			
Surrogate: n-Nonane	49.3		50.0		98.5	50-200			

Matrix Spike Dup (2315064-MSD1)					Source: E304065-06		Prepared: 04/13/23 Analyzed: 04/13/23		
Diesel Range Organics (C10-C28)	269	25.0	250	ND	108	38-132	0.574	20	
Surrogate: n-Nonane	49.3		50.0		98.7	50-200			





QC Summary Data

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/19/2023 8:12:55AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2315066-BLK1)					Prepared: 04/13/23 Analyzed: 04/13/23				
Chloride	ND	20.0							
LCS (2315066-BS1)					Prepared: 04/13/23 Analyzed: 04/13/23				
Chloride	255	20.0	250		102	90-110			
Matrix Spike (2315066-MS1)					Source: E304065-01		Prepared: 04/13/23 Analyzed: 04/13/23		
Chloride	623	200	250	375	99.4	80-120			
Matrix Spike Dup (2315066-MSD1)					Source: E304065-01		Prepared: 04/13/23 Analyzed: 04/13/23		
Chloride	629	200	250	375	102	80-120	0.934	20	

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	04/19/23 08:12

- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client: Devon Energy		Bill To		Lab Use Only						TAT				EPA Program				
Project: Pease Federal #001Y		Attention: Jim Raley		Lab WO# E 304065		Job Number 01058-0007		1D	2D	3D	Standard	CWA	SDWA					
Project Manager: Ashley Giovengo		Address: 5315 Bacon Vista Dr																
Address: 3122 National Park Hwy		City, State, Zip: Carlsbad, NM 88220		Analysis and Method											RCRA			
City, State, Zip: Carlsbad, NM 88220		Phone: 575-654-7597												State				
Phone: 575-988-0055		Email: Jim.Raley@devon.com												NM	CO	UT	AZ	TX
Email: agiovengo@ensco.com														X				
Report due by:																		

[illegible]

Additional Instructions: Kept on IL Phase CC @ jlorenz0@Ehsolun.com and Jim.Raley@duke.com on results

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action.						Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.							
Sampled by: <u>Dmitry Nishanorov</u>													
Relinquished by: (Signature)		Date <u>4/12/23</u>		Time <u>09:20</u>		Received by: (Signature)		Date <u>4-12-23</u>		Time <u>9:18</u>		Lab Use Only Received on ice: <input checked="" type="radio"/> Y / <input type="radio"/> N	
Relinquished by: (Signature)		Date <u>4-12-23</u>		Time <u>1500</u>		Received by: (Signature)		Date <u>4-12-23</u>		Time <u>1500</u>		T1 _____ T2 _____ T3 _____	
Relinquished by: (Signature)		Date <u>4-12-23</u>		Time <u>1945</u>		Received by: (Signature)		Date <u>4/13/23</u>		Time <u>8:15</u>		AVG Temp °C <u>4.0</u>	
Sample Matrix: <b>S</b> - Soil, <b>Sd</b> - Solid, <b>Sg</b> - Sludge, <b>A</b> - Aqueous, <b>O</b> - Other _____						Container Type: <b>g</b> - glass, <b>p</b> - poly/plastic, <b>ag</b> - amber glass, <b>v</b> - VOA							
Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.													

## Envirotech Analytical Laboratory

Printed: 4/13/2023 10:28:04AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	04/13/23 08:15	Work Order ID:	E304065
Phone:	(505) 382-1211	Date Logged In:	04/12/23 16:43	Logged In By:	Caitlin Christian
Email:	ashley.giovengo@wescominc.com	Due Date:	04/13/23 17:00 (0 day TAT)		

Chain of Custody (COC)

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: CourierComments/ResolutionSample Turn Around Time (TAT)

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

Sample Cooler

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

Sample Container

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

Field Label

20. Were field sample labels filled out with the minimum information:
  - Sample ID? Yes
  - Date/Time Collected? Yes
  - Collectors name? No

Sample Preservation

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

Multiphase Sample Matrix

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

Subcontract Laboratory

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: NA

Client Instruction

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



Report to:  
Ashley Giovengo



# envirotech

*Practical Solutions for a Better Tomorrow*

## Analytical Report

Devon Energy - Carlsbad

Project Name: Pecos Federal #001Y

Work Order: E304082

Job Number: 01058-0007

Received: 4/17/2023

Revision: 1

Report Reviewed By:

Walter Hinchman  
Laboratory Director  
4/18/23

5796 U.S. Hwy 64  
Farmington, NM 87401

Phone: (505) 632-1881  
Envirotech-inc.com



Envirotech Inc. certifies the test results meet all requirements of TNI unless noted otherwise.  
Statement of Data Authenticity: Envirotech Inc. attests the data reported has not been altered in any way.  
Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech Inc.  
Envirotech Inc. holds the Utah TNI certification NM00979 for data reported.  
Envirotech Inc. holds the Texas TNI certification T104704557 for data reported.

Date Reported: 4/18/23



Ashley Giovengo  
6488 7 Rivers Hwy  
Artesia, NM 88210

Project Name: Pecos Federal #001Y  
Workorder: E304082  
Date Received: 4/17/2023 9:30:00AM

Ashley Giovengo,

Thank you for choosing Envirotech, Inc. as your analytical testing laboratory for the sample(s) received on, 4/17/2023 9:30:00AM, under the Project Name: Pecos Federal #001Y.

The analytical test results summarized in this report with the Project Name: Pecos Federal #001Y apply to the individual samples collected, identified and submitted bearing the project name on the enclosed chain-of-custody. Subcontracted sample analyses not conducted by Envirotech, Inc., are attached in full as issued by the subcontract laboratory.

Please review the Chain-of-Custody (COC) and Sample Receipt Checklist (SRC) for any issues regarding sample receipt temperature, containers, preservation etc. To best understand your test results, review the entire report summarizing your sample data and the associated quality control batch data.

All reported data in this analytical report were analyzed according to the referenced method(s) and are in compliance with the latest NELAC/TNI standards, unless otherwise noted. Samples or analytical quality control parameters not meeting specific QC criteria are qualified with a data flag. Data flag definitions are located in the Notes and Definitions section of this analytical report.

If you have any questions concerning this report, please feel free to contact Envirotech, Inc.

Respectfully,

**Walter Hinchman**  
Laboratory Director  
Office: 505-632-1881  
Cell: 775-287-1762  
[whinchman@envirotech-inc.com](mailto:whinchman@envirotech-inc.com)

**Raina Schwanz**  
Laboratory Administrator  
Office: 505-632-1881  
[rainaschwanz@envirotech-inc.com](mailto:rainaschwanz@envirotech-inc.com)

**Alexa Michaels**  
Sample Custody Officer  
Office: 505-632-1881  
[labadmin@envirotech-inc.com](mailto:labadmin@envirotech-inc.com)

Field Offices:

**Southern New Mexico Area**  
**Lynn Jarboe**  
Technical Representative/Client Services  
Office: 505-421-LABS(5227)  
Cell: 505-320-4759  
[ljjarboe@envirotech-inc.com](mailto:ljjarboe@envirotech-inc.com)

**West Texas Midland/Odessa Area**  
**Rayny Hagan**  
Technical Representative  
Office: 505-421-LABS(5227)

Envirotech Web Address: [www.envirotech-inc.com](http://www.envirotech-inc.com)

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Sample Summary

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	04/18/23 11:21

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
FS09 - 9.5'	E304082-01A	Soil	04/14/23	04/15/23	Glass Jar, 2 oz.



## Sample Data

Devon Energy - Carlsbad  
6488 7 Rivers Hwy  
Artesia NM, 88210

Project Name: Pecos Federal #001Y  
Project Number: 01058-0007  
Project Manager: Ashley Giovengo

**Reported:**  
4/18/2023 11:21:59AM

FS09 - 9.5'

E304082-01

Analyte	Result	Reporting Limit	Dilution	Prepared	Analyzed	Notes
<b>Volatile Organics by EPA 8021B</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2316001	
Benzene	ND	0.0250	1	04/17/23	04/17/23	
Ethylbenzene	ND	0.0250	1	04/17/23	04/17/23	
Toluene	ND	0.0250	1	04/17/23	04/17/23	
o-Xylene	ND	0.0250	1	04/17/23	04/17/23	
p,m-Xylene	ND	0.0500	1	04/17/23	04/17/23	
Total Xylenes	ND	0.0250	1	04/17/23	04/17/23	
Surrogate: 4-Bromochlorobenzene-PID	91.4 %	70-130		04/17/23	04/17/23	
<b>Nonhalogenated Organics by EPA 8015D - GRO</b>						
	mg/kg	mg/kg	Analyst: IY		Batch: 2316001	
Gasoline Range Organics (C6-C10)	ND	20.0	1	04/17/23	04/17/23	
Surrogate: 1-Chloro-4-fluorobenzene-FID	99.1 %	70-130		04/17/23	04/17/23	
<b>Nonhalogenated Organics by EPA 8015D - DRO/ORO</b>						
	mg/kg	mg/kg	Analyst: JL		Batch: 2316005	
Diesel Range Organics (C10-C28)	ND	25.0	1	04/17/23	04/17/23	
Oil Range Organics (C28-C36)	ND	50.0	1	04/17/23	04/17/23	
Surrogate: n-Nonane	95.2 %	50-200		04/17/23	04/17/23	
<b>Anions by EPA 300.0/9056A</b>						
	mg/kg	mg/kg	Analyst: BA		Batch: 2316007	
Chloride	306	100	5	04/17/23	04/17/23	



## QC Summary Data

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/18/2023 11:21:59AM

## Volatile Organics by EPA 8021B

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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## Blank (2316001-BLK1)

Prepared: 04/17/23 Analyzed: 04/17/23

Benzene	ND	0.0250							
Ethylbenzene	ND	0.0250							
Toluene	ND	0.0250							
o-Xylene	ND	0.0250							
p,m-Xylene	ND	0.0500							
Total Xylenes	ND	0.0250							
Surrogate: 4-Bromochlorobenzene-PID	7.39		8.00		92.4	70-130			

## LCS (2316001-BS1)

Prepared: 04/17/23 Analyzed: 04/17/23

Benzene	4.55	0.0250	5.00		90.9	70-130			
Ethylbenzene	4.53	0.0250	5.00		90.7	70-130			
Toluene	4.66	0.0250	5.00		93.1	70-130			
o-Xylene	4.62	0.0250	5.00		92.5	70-130			
p,m-Xylene	9.26	0.0500	10.0		92.6	70-130			
Total Xylenes	13.9	0.0250	15.0		92.5	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.45		8.00		93.1	70-130			

## Matrix Spike (2316001-MS1)

Source: E304082-01

Prepared: 04/17/23 Analyzed: 04/17/23

Benzene	4.74	0.0250	5.00	ND	94.8	54-133			
Ethylbenzene	4.72	0.0250	5.00	ND	94.4	61-133			
Toluene	4.85	0.0250	5.00	ND	97.0	61-130			
o-Xylene	4.82	0.0250	5.00	ND	96.3	63-131			
p,m-Xylene	9.61	0.0500	10.0	ND	96.1	63-131			
Total Xylenes	14.4	0.0250	15.0	ND	96.2	63-131			
Surrogate: 4-Bromochlorobenzene-PID	7.55		8.00		94.3	70-130			

## Matrix Spike Dup (2316001-MSD1)

Source: E304082-01

Prepared: 04/17/23 Analyzed: 04/17/23

Benzene	4.51	0.0250	5.00	ND	90.1	54-133	5.05	20	
Ethylbenzene	4.49	0.0250	5.00	ND	89.9	61-133	4.89	20	
Toluene	4.61	0.0250	5.00	ND	92.2	61-130	5.06	20	
o-Xylene	4.58	0.0250	5.00	ND	91.6	63-131	5.04	20	
p,m-Xylene	9.16	0.0500	10.0	ND	91.6	63-131	4.83	20	
Total Xylenes	13.7	0.0250	15.0	ND	91.6	63-131	4.90	20	
Surrogate: 4-Bromochlorobenzene-PID	7.49		8.00		93.6	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/18/2023 11:21:59AM

Nonhalogenated Organics by EPA 8015D - GRO

Analyst: IY

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2316001-BLK1) Prepared: 04/17/23 Analyzed: 04/17/23

Gasoline Range Organics (C6-C10)	ND	20.0							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.73		8.00		96.6	70-130			

LCS (2316001-BS2) Prepared: 04/17/23 Analyzed: 04/17/23

Gasoline Range Organics (C6-C10)	49.1	20.0	50.0		98.2	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.66		8.00		95.7	70-130			

Matrix Spike (2316001-MS2) Source: E304082-01 Prepared: 04/17/23 Analyzed: 04/17/23

Gasoline Range Organics (C6-C10)	50.6	20.0	50.0	ND	101	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.85		8.00		98.1	70-130			

Matrix Spike Dup (2316001-MSD2) Source: E304082-01 Prepared: 04/17/23 Analyzed: 04/17/23

Gasoline Range Organics (C6-C10)	45.9	20.0	50.0	ND	91.9	70-130	9.70	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.87		8.00		98.4	70-130			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/18/2023 11:21:59AM

Nonhalogenated Organics by EPA 8015D - DRO/ORO

Analyst: JL

Analyte	Result mg/kg	Reporting Limit mg/kg	Spike Level mg/kg	Source Result mg/kg	Rec %	Rec Limits %	RPD %	RPD Limit %	Notes
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Blank (2316005-BLK1)					Prepared: 04/17/23 Analyzed: 04/17/23				
Diesel Range Organics (C10-C28)	ND	25.0							
Oil Range Organics (C28-C36)	ND	50.0							
Surrogate: n-Nonane	43.9		50.0		87.9	50-200			

LCS (2316005-BS1)					Prepared: 04/17/23 Analyzed: 04/18/23				
Diesel Range Organics (C10-C28)	249	25.0	250		99.5	38-132			
Surrogate: n-Nonane	51.1		50.0		102	50-200			

Matrix Spike (2316005-MS1)					Source: E304082-01		Prepared: 04/17/23 Analyzed: 04/17/23		
Diesel Range Organics (C10-C28)	257	25.0	250	ND	103	38-132			
Surrogate: n-Nonane	83.0		50.0		166	50-200			

Matrix Spike Dup (2316005-MSD1)					Source: E304082-01		Prepared: 04/17/23 Analyzed: 04/17/23		
Diesel Range Organics (C10-C28)	266	25.0	250	ND	107	38-132	3.47	20	
Surrogate: n-Nonane	70.9		50.0		142	50-200			



QC Summary Data

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	Reported:
6488 7 Rivers Hwy	Project Number:	01058-0007	
Artesia NM, 88210	Project Manager:	Ashley Giovengo	4/18/2023 11:21:59AM

Anions by EPA 300.0/9056A

Analyst: BA

Analyte	Result	Reporting Limit	Spike Level	Source Result	Rec	Rec Limits	RPD	RPD Limit	Notes
	mg/kg	mg/kg	mg/kg	mg/kg	%	%	%	%	

Blank (2316007-BLK1)					Prepared: 04/17/23 Analyzed: 04/17/23				
Chloride	ND	20.0							
LCS (2316007-BS1)					Prepared: 04/17/23 Analyzed: 04/17/23				
Chloride	250	20.0	250		100	90-110			
Matrix Spike (2316007-MS1)					Source: E304082-01		Prepared: 04/17/23 Analyzed: 04/17/23		
Chloride	650	100	250	306	137	80-120			M2
Matrix Spike Dup (2316007-MSD1)					Source: E304082-01		Prepared: 04/17/23 Analyzed: 04/17/23		
Chloride	660	100	250	306	141	80-120	1.49	20	M2

QC Summary Report Comment:  
Calculations are based off of the raw (non-rounded) data. However, for reporting purposes all QC data is rounded to three significant figures.  
Therefore, hand calculated values may differ slightly.



Definitions and Notes

Devon Energy - Carlsbad	Project Name:	Pecos Federal #001Y	
6488 7 Rivers Hwy	Project Number:	01058-0007	Reported:
Artesia NM, 88210	Project Manager:	Ashley Giovengo	04/18/23 11:21

- M2 Matrix spike recovery was outside quality control limits. The associated LCS spike recovery was acceptable.
- ND Analyte NOT DETECTED at or above the reporting limit
- NR Not Reported
- RPD Relative Percent Difference
- DNI Did Not Ignite

Note (1): Methods marked with \*\* are non-accredited methods.

Note (2): Soil data is reported on an "as received" weight basis, unless reported otherwise.



Client:						Lab Use Only							TAT				EPA Program			
Project:						Job WO#							1D	2D	3D	Standard	CWA	SDWA		
Project Manager:						Job Number							X							
Address:						Analysis and Method											RCRA			
City, State, Zip																				
Phone:																				
Email:																				
Report due by:																				
Time Sampled	Date Sampled	Matrix	No. of Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chloride 300.0									
11:00am	4/14/23	S	1 jar	FS09-9.5'	1															
Additional Instructions: Preserved on ice. Please cc jim.raley@dnv.com & agiovenzo@ensolum.com on sample results.																				
I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.																				
Relinquished by: (Signature) Date Time Received by: (Signature) Date Time <i>[Signature]</i> 4/14/23 14:03 <i>[Signature]</i> 4-14-23 1405 Received on ice: Y N T1 T2 T3 AVG Temp °C 4																				
Relinquished by: (Signature) Date Time Received by: (Signature) Date Time <i>[Signature]</i> 4-14-23 1600 <i>[Signature]</i> 4-14-23 15:50 Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA																				
Relinquished by: (Signature) Date Time Received by: (Signature) Date Time <i>[Signature]</i> 4.14.23 22:00 <i>[Signature]</i> 4.17.23 9:30 Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.																				

## Envirotech Analytical Laboratory

Printed: 4/17/2023 10:37:25AM

## Sample Receipt Checklist (SRC)

Instructions: Please take note of any NO checkmarks.

If we receive no response concerning these items within 24 hours of the date of this notice, all the samples will be analyzed as requested.

Client:	Devon Energy - Carlsbad	Date Received:	04/17/23 09:30	Work Order ID:	E304082
Phone:	(505) 382-1211	Date Logged In:	04/14/23 16:40	Logged In By:	Caitlin Christian
Email:	ashley.giovengo@wescominc.com	Due Date:	04/17/23 17:00 (0 day TAT)		

**Chain of Custody (COC)**

1. Does the sample ID match the COC? Yes
2. Does the number of samples per sampling site location match the COC? Yes
3. Were samples dropped off by client or carrier? Yes
4. Was the COC complete, i.e., signatures, dates/times, requested analyses? Yes
5. Were all samples received within holding time? Yes

Note: Analysis, such as pH which should be conducted in the field, i.e., 15 minute hold time, are not included in this discussion.

Carrier: Courier**Comments/Resolution****Sample Turn Around Time (TAT)**

6. Did the COC indicate standard TAT, or Expedited TAT? Yes

**Sample Cooler**

7. Was a sample cooler received? Yes
8. If yes, was cooler received in good condition? Yes
9. Was the sample(s) received intact, i.e., not broken? Yes
10. Were custody/security seals present? No
11. If yes, were custody/security seals intact? NA
12. Was the sample received on ice? If yes, the recorded temp is 4°C, i.e., 6°±2°C? Yes

Note: Thermal preservation is not required, if samples are received w/i 15 minutes of sampling

13. If no visible ice, record the temperature. Actual sample temperature: 4°C

**Sample Container**

14. Are aqueous VOC samples present? No
15. Are VOC samples collected in VOA Vials? NA
16. Is the head space less than 6-8 mm (pea sized or less)? NA
17. Was a trip blank (TB) included for VOC analyses? NA
18. Are non-VOC samples collected in the correct containers? Yes
19. Is the appropriate volume/weight or number of sample containers collected? Yes

**Field Label**

20. Were field sample labels filled out with the minimum information:  
Sample ID? Yes  
Date/Time Collected? Yes  
Collectors name? No

**Sample Preservation**

21. Does the COC or field labels indicate the samples were preserved? No
22. Are sample(s) correctly preserved? NA
24. Is lab filtration required and/or requested for dissolved metals? No

**Multiphase Sample Matrix**

26. Does the sample have more than one phase, i.e., multiphase? No
27. If yes, does the COC specify which phase(s) is to be analyzed? NA

**Subcontract Laboratory**

28. Are samples required to get sent to a subcontract laboratory? No
29. Was a subcontract laboratory specified by the client and if so who? NA Subcontract Lab: na

**Client Instruction**

Signature of client authorizing changes to the COC or sample disposition.

Date



envirotech Inc.



## APPENDIX C

### Photographic Log

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**Photographic Log**

Devon Energy

Pecos Federal #001Y

Incident Number nAPP2208846424

Ensolum Job Number: 03A1987014



Photograph 1

Date: 03/24/2022

Description: Spill Location, Facing North



Photograph 2

Date: 03/24/2022

Description: Overspray, Facing NW



Photograph 3

Date: 03/24/2023

Description: Overspray in pasture, Facing North



Photograph 4

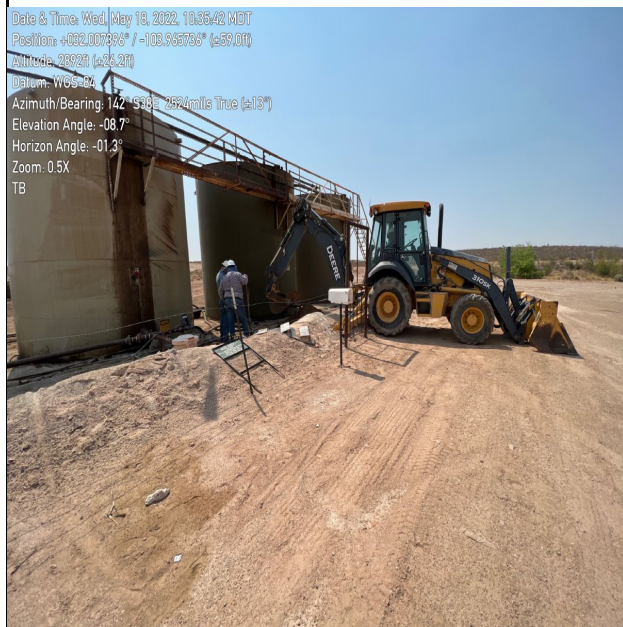
Date: 03/24/2023

Description: Overspray in pasture, Facing SW





**Photographic Log**  
 Devon Energy  
 Pecos Federal #001Y  
 Incident Number nAPP2208846424  
 Ensolum Job Number: 03A1987014



**Photograph 5**  
 Date: 05/18/2022  
 Description: Delineation activities, Facing NW



**Photograph 6**  
 Date: 05/18/2022  
 Description: Delineation activities, Facing South



**Photograph 7**  
 Date: 05/18/2022  
 Description: Delineation activities, Facing South



**Photograph 8**  
 Date: 05/18/2022  
 Description: Delineation activities, Facing SE



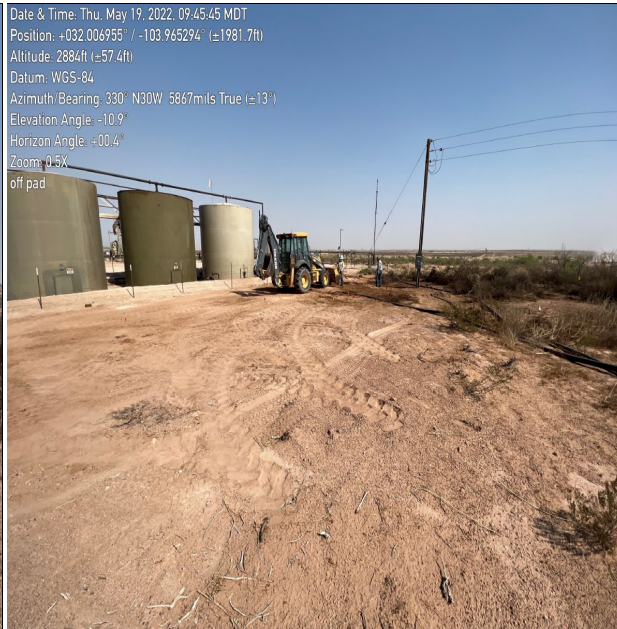


**Photographic Log**  
 Devon Energy  
 Pecos Federal #001Y  
 Ensolum Job Number: 03A1987014

Date & Time: Wed, May 18, 2022, 16:30:18 MDT  
 Position: +032.007330° / -103.965380° (±11.6ft)  
 Altitude: 2884ft (±9.8ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 313° N68W 5867mils True (±13°)  
 Elevation Angle: -86.5°  
 Horizon Angle: +01.1°  
 Zoom: 0.5X  
 off pad



Date & Time: Thu, May 19, 2022, 09:45:45 MDT  
 Position: +032.006955° / -103.965294° (±1981.7ft)  
 Altitude: 2884ft (±57.4ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 330° N30W 5867mils True (±13°)  
 Elevation Angle: -10.9°  
 Horizon Angle: +00.4°  
 Zoom: 0.5X  
 off pad



**Photograph 9**

**Date: 05/18/2022**

**Description: Delineation activities, Facing NW**

Date & Time: Thu, May 19, 2022, 11:25:50 MDT  
 Position: +032.007309° / -103.965386° (±11.6ft)  
 Altitude: 2890ft (±9.8ft)  
 Datum: WGS-84  
 Azimuth/Bearing: 310° N50W 5511mils True (±13°)  
 Elevation Angle: -13.9°  
 Horizon Angle: -00.2°  
 Zoom: 0.5X  
 off pad



**Photograph 11**

**Date: 05/19/2022**

**Description: Post delineation activities, Facing NW**

**Photograph 10**

**Date: 05/19/2022**

**Description: Delineation activities, Facing NW**



**Photograph 12**

**Date: 11/10/2022**

**Description: Delineation activities, Facing East**



**Photographic Log**

Devon Energy

Pecos Federal #001Y

Incident Number nAPP2208846424

Ensolum Job Number: 03A1987014



Photograph 13

Date: 11/10/2022

Description: Delineation activities, Facing NE



Photograph 14

Date: 11/10/2022

Description: Delineation activities, Facing NE



Photograph 15

Date: 11/10/2022

Description: Delineation activities, Facing NE



Photograph 16

Date: 03/24/2023

Description: Excavation activities, Facing West





# Photographic Log

Devon Energy

Pecos Federal #001Y

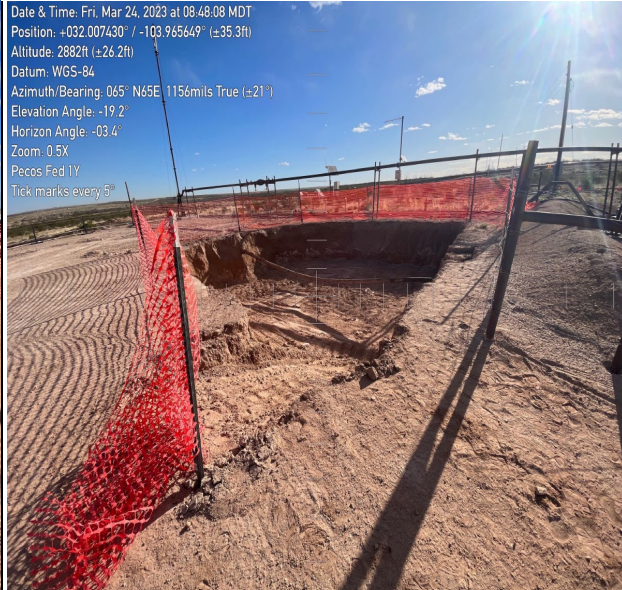
Incident Number nAPP2208846424

Ensolum Job Number: 03A1987014

Date & Time: Fri, Mar 24, 2023 at 08:46:46 MDT  
Position: +032.007592° / -103.965802° (±16.6ft)  
Altitude: 2897ft (±10.9ft)  
Datum: WGS-84  
Azimuth/Bearing: 200° S20W 1556mils True (±12°)  
Elevation Angle: -15°  
Horizon Angle: +00.2°  
Zoom: 0.5X  
Pecos Fed 1Y  
Tick marks every 5°



Date & Time: Fri, Mar 24, 2023 at 08:48:08 MDT  
Position: +032.007430° / -103.965649° (±35.3ft)  
Altitude: 2882ft (±26.2ft)  
Datum: WGS-84  
Azimuth/Bearing: 045° N65E 1156mils True (±21°)  
Elevation Angle: -19.2°  
Horizon Angle: -03.4°  
Zoom: 0.5X  
Pecos Fed 1Y  
Tick marks every 5°



Photograph 17

Date: 03/24/2023

Description: Excavation activities, Facing SW

Photograph 18

Date: 03/24/2023

Description: Excavation activities, Facing NE



Latitude: 32.007310  
Longitude: -103.965876  
Elevation: 2889.3±11.0 ft  
Accuracy: 15.6 ft  
Azimuth: 139.0° (SE)  
Pitch: -21.6° (3.1°)  
Time: 04-11-2023 10:36:25

AngleCam @ iOS



Latitude: 32.007415  
Longitude: -103.965861  
Elevation: 2879.1±11.6 ft  
Accuracy: 15.2 ft  
Azimuth: 192.6° (S)  
Pitch: -18.6° (1.6°)  
Time: 04-11-2023 11:17:48

AngleCam @ iOS

Photograph 19

Date: 04/11/2023

Description: Excavation activities, Facing SE

Photograph 20

Date: 04/11/2023

Description: Excavation activities, Facing SE





# Photographic Log

Devon Energy

Pecos Federal #001Y

Incident Number nAPP2208846424

Ensolum Job Number: 03A1987014



Photograph 21

Date: 04/11/2023

Description: Excavation activities, Facing West



Photograph 22

Date: 04/14/2023

Description: Liner installation, Facing NW



Photograph 23

Date: 04/14/2023

Description: Liner installation, Facing SW



Photograph 24

Date: 04/14/2023

Description: Liner installation, Facing NE



## APPENDIX D

### C-141 Forms

---

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural  
Resources Department  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

Incident ID:	nAPP2208846424
District RP	
Facility ID	
Application ID	

# Release Notification

## Responsible Party

Responsible Party: WPX Energy Permian, LLC	OGRID: 246289
Contact Name: Jim Raley	Contact Telephone: 575-689-7597
Contact email: jim.raley@dv.com	Incident # (assigned by OCD): nAPP2208846424
Contact mailing address: 5315 Buena Vista Dr, Carlsbad, NM, 88220	

## Location of Release Source

Latitude 32.0072937 Longitude -103.9659729  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name: Pecos Federal #001Y	Site Type: Oil Production Site
Date Release Discovered: 3/21/2022	API# (if applicable): 30-015-24875

Unit Letter	Section	Township	Range	County
P	27	26S	29E	Eddy

Surface Owner: ☐ State ☒ Federal ☐ Tribal ☐ Private (Name: \_\_\_\_\_)

## Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls): 8	Volume Recovered (bbls): 3
<input type="checkbox"/> Produced Water	Volume Released (bbls):	Volume Recovered (bbls):
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release:

Tank overflow allowed the release of approx. 8 bbls of oil. Approx 6 bbls was released to secondary containment of which 3 bbls was recovered. Winds allowed approx. 2 bbls to impact soils offsite.

$$bbl\ estimate = \frac{\text{saturated soil volume}(ft^3)}{4.21(\frac{ft^3}{bbl\ equivalent})} * \text{estimated soil porosity (\%)} + \text{recovered fluids (bbls)}$$




Incident ID:	nAPP2208846424
District RP	
Facility ID	
Application ID	

<p>Was this a major release as defined by 19.15.29.7(A) NMAC?</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>If YES, for what reason(s) does the responsible party consider this a major release?</p>
<p>If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?</p>	

## Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Jim Raley</u>	Title: <u>Environmental Professional</u>
Signature: <u></u>	Date: <u>12/29/2022</u>
email: <u>jim.raley@dvn.com</u>	Telephone: <u>575-689-7597</u>
<b><u>OCD Only</u></b>	
Received by: _____	Date: _____

Incident ID	nAPP2208846424
District RP	
Facility ID	
Application ID	

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	<u>51-100</u> (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

### **Characterization Report Checklist:** *Each of the following items must be included in the report.*

- ☒ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☒ Field data
- ☒ Data table of soil contaminant concentration data
- ☒ Depth to water determination
- ☒ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☒ Boring or excavation logs
- ☒ Photographs including date and GIS information
- ☒ Topographic/Aerial maps
- ☒ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

State of New Mexico  
Oil Conservation Division

Page 4

Incident ID	nAPP2208846424
District RP	
Facility ID	
Application ID	

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: James Raley Title: Environmental Specialist

Signature: \_\_\_\_\_ Date: 04/21/202

email: jim.raley@dn.com Telephone: 575-689-7597

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	nAPP2208846424
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☐ Detailed description of proposed remediation technique
- ☐ Scaled sitemap with GPS coordinates showing delineation points
- ☐ Estimated volume of material to be remediated
- ☐ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☐ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Jim Raley Title: Environmental SpecialistSignature: \_\_\_\_\_ Date: 04/21/2023email: [jim.raley@dnv.com](mailto:jim.raley@dnv.com) Telephone: 575-689-7597**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_



## NM OIL CONSERVATION

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

ARTESIA DISTRICT

NOV 10 2014

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Form C-141  
Revised August 8, 2011

RECEIVED

## Release Notification and Corrective Action

**14B1431105 D115**

<b>OPERATOR</b>		<input checked="" type="checkbox"/> Initial Report	<input type="checkbox"/> Final Report
Name of Company	RKI E&P, LLC <b>246284</b>	Contact	Zack Laird
Address	210 Park Ave. - Ste. 900, OKC, OK 73102	Telephone No.	405-742-2696
Facility Name	Pecos Federal 001Y	Facility Type	Oil and Gas Well
Surface Owner	Federal	Mineral Owner	Federal
		API No.	30-015-24875

## LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	27	26S	29E		690 FSL		660FEL	Eddy

Latitude 32.0072945706848 Longitude -103.965986188431

## NATURE OF RELEASE

Type of Release	Produced Water	Volume of Release	25Bbls	Volume Recovered	25Bbls
Source of Release	Transfer Pump Suction Line Leak	Date and Hour of Occurrence	11/10/14 - prior to 0800hrs MT	Date and Hour of Discovery	11/10/14 - 0800hrs MT
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Heather Patterson (Voicemail on mobile) <b>X</b>		
By Whom?	Zack Laird - Sr. EHS Manager	Date and Hour	11/10/14 - 1727hrs (CT)	<b>4:43pm * attached</b>	
Was a Watercourse Reached?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully: \* N/A

Describe Cause of Problem and Remedial Action Taken.\*

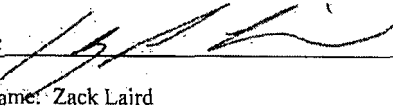
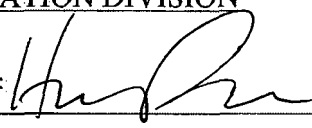
Transfer pump suction line from tank battery developed a leak and released 25Bbls of produced water to lined secondary containment. A vacuum truck was used to recover free liquids. The suction line, formerly rubber hose construction, will be replaced with steel line.

Describe Area Affected and Cleanup Action Taken.\*

All fluid remained in lined secondary containment and was able to be recovered with vacuum truck.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

## OIL CONSERVATION DIVISION

Signature: 	Approved by Environmental Specialist: 	
Printed Name: Zack Laird	Approval Date: <b>11/12/14</b>	Expiration Date: <b>NA</b>
Title: Sr. EHS Manager	Conditions of Approval:	
E-mail Address: ZLaird@rkixp.com	Attached <input type="checkbox"/>	
Date: 11/10/14	Phone: 405-987-2213	

\* Attach Additional Sheets If Necessary

2RP-2595

**Patterson, Heather, EMNRD**

---

**From:** Zackary Laird <ZLaird@rkixp.com>  
**Sent:** Monday, November 10, 2014 4:43 PM \*  
**To:** Patterson, Heather, EMNRD  
**Cc:** Hughes, Solomon; Kipper Folmar; Gene Thompson  
**Subject:** RKI E&P Spill Notification and C-141  
**Attachments:** NM\_PecosFed001Y\_SignedC141(111014).pdf

Heather,

Attached please find completed OCD form C-141 for a spill detected today at the RKI Pecos Federal 001Y well in Eddy County, NM (API # 30-015-24875). Because the spill volume was 25Bbls, I did try to reach you and left a voicemail on your mobile as well.

Sol,

I do not believe that this spill, because it remained in lined containment, required notification to the BLM; however, I wanted to include you on this email in the spirit of open communication.

Please feel free to contact myself or a local RKI representative with any questions.

Kind Regards,

Zack Laird | Sr. EHS Manager

**RKI Exploration & Production, LLC**

210 Park Avenue, Suite 900 | Oklahoma City, OK 73102

405.987.2213 (o) | 405.742.2696 (m) | [ZLaird@rkixp.com](mailto:ZLaird@rkixp.com)

---

This email is confidential. If you believe it has been sent to you in error, then do not read it, do notify the sender you have received it, and delete it. Email transmissions cannot be warranted to be secure or error-free as information could be intercepted, misdirected, corrupted, lost, incomplete, destroyed or containing viruses. The sender therefore cannot guarantee the integrity or security of this email or any file(s) included herewith. RKI and the sender hereby disclaim any and all liability for injury or damages that may result from the recipient(s) receipt or transmission of this email and any file(s) included herewith or reliance on the contents thereof. Any oilfield equipment, materials or services ordered by or provided to RKI or its affiliates in connection with this message shall be governed by RKI's Terms and Conditions of Purchase ( a copy of which may be found at [www.rkixp.com](http://www.rkixp.com) ) and such Terms and Conditions of Purchase are hereby incorporated and expressly made a part hereof. A paper copy of RKI's Terms and Conditions of Purchase will be provided upon your written request.



## APPENDIX E

### Email Correspondence

---

**From:** [Erick Herrera](#)  
**To:** [Joseph Hernandez](#)  
**Subject:** FW: [EXTERNAL] WPX Site Sampling Activity Update (11/7 - 11/11)  
**Date:** Tuesday, December 20, 2022 4:46:57 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---



**Erick Herrera**

Staff Geologist

281-777-4152

**Ensolum, LLC**

in f

---

**From:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@emnrd.nm.gov](mailto:Jennifer.Nobui@emnrd.nm.gov)>  
**Sent:** Wednesday, November 2, 2022 3:58 PM  
**To:** Erick Herrera <[eherrera@ensolum.com](mailto:eherrera@ensolum.com)>  
**Cc:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] WPX Site Sampling Activity Update (11/7 - 11/11)

[ \*\*EXTERNAL EMAIL\*\* ]

Erick

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,  
Jennifer Nobui

---

**From:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Sent:** Wednesday, November 2, 2022 11:54 AM  
**To:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Nobui, Jennifer, EMNRD <[Jennifer.Nobui@emnrd.nm.gov](mailto:Jennifer.Nobui@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] WPX Site Sampling Activity Update (11/7 - 11/11)

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@state.nm.us](mailto:Jocelyn.Harimon@state.nm.us)  
<http://www.emnrd.nm.gov>



---

**From:** Erick Herrera <[eherrera@ensolum.com](mailto:eherrera@ensolum.com)>  
**Sent:** Wednesday, November 2, 2022 11:52 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>; 'CFO\_Spill, BLM\_NM' <[blm\\_nm\\_cfo\\_spill@blm.gov](mailto:blm_nm_cfo_spill@blm.gov)>  
**Cc:** Raley, Jim <[jim.raley@dvn.com](mailto:jim.raley@dvn.com)>; Devon-Team <[Devon-Team@ensolum.com](mailto:Devon-Team@ensolum.com)>  
**Subject:** [EXTERNAL] WPX Site Sampling Activity Update (11/7 - 11/11)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between November 7<sup>th</sup> – November 11<sup>th</sup>, 2022:

Site Name: LVP #001  
API: 30-015-42234  
Incident Number: nAPP2135033453

Site Name: RDX 21-44  
API: 30-015-41193  
Incident Number: nAPP2115533694

Site Name: UCBH WW ROW  
API: 30-015-24451, 30-015-24034  
Incident Numbers: nAB1805133508, nAB1501655607, nAB1522341642, nAB1621453181, nAB1633639499

Site Name: Ross Draw Unit #034  
API: 30-015-41578  
Incident Numbers: nAPP2107554265, NAB1736055339, and NAB1528240224

Site Name: Yates Federal #001  
API: 30-015-24602  
Incident Number: NRM2011138650 and NAB1428734057

Site Name: Pecos Federal #001Y  
API: 30-015-24875

Incident Number: nAPP2208846424

Site Name: MWJ Federal 1

API: 30-015-24262

Incident Numbers: nAB1503440420, nAB1524652333, and nAB1719940724



**Erick Herrera**

Staff Geologist

281-777-4152

**Ensolum, LLC**

in f 

**PLEASE NOTE OUR NEW CORPORATE ADDRESS:**

Ensolum, LLC

8330 LBJ Freeway, Ste. B830

Dallas, TX 75243

**From:** [Raley, Jim](#)  
**To:** [Devon-Team](#)  
**Subject:** FW: [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 118553  
**Date:** Tuesday, September 20, 2022 12:09:15 PM  
**Attachments:** [image001.png](#)

---

[ \*\*EXTERNAL EMAIL \*\* ]

Pecos Fed 1 Y remediation plan approved with conditions.

Jim Raley | Environmental Professional - Permian Basin  
5315 Buena Vista Dr., Carlsbad, NM 88220  
C: (575)689-7597 | [jim.ralej@devon.com](mailto:jim.ralej@devon.com)



---

**From:** OCDOnline@state.nm.us <OCDOnline@state.nm.us>  
**Sent:** Tuesday, September 20, 2022 11:05 AM  
**To:** Raley, Jim <Jim.Raley@devon.com>  
**Subject:** [EXTERNAL] The Oil Conservation Division (OCD) has approved the application, Application ID: 118553

To whom it may concern (c/o James Raley for WPX Energy Permian, LLC),

The OCD has approved the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nAPP2208846424, with the following conditions:

- **Remediation Plan Approved with Conditions. Please address chloride concentrations in PH-13 at 2' (1,460 mg/kg).**

The signed C-141 can be found in the OCD Online: Imaging under the incident ID (n#).

If you have any questions regarding this application, please contact me.

Thank you,  
Jennifer Nobui  
Environmental Specialist-Advanced  
505-470-3407  
[Jennifer.Nobui@state.nm.us](mailto:Jennifer.Nobui@state.nm.us)

**New Mexico Energy, Minerals and Natural Resources Department**  
1220 South St. Francis Drive  
Santa Fe, NM 87505

Confidentiality Warning: This message and any attachments are intended only for the use of



the intended recipient(s), are confidential, and may be privileged. If you are not the intended recipient, you are hereby notified that any review, retransmission, conversion to hard copy, copying, circulation or other use of all or any portion of this message and any attachments is strictly prohibited. If you are not the intended recipient, please notify the sender immediately by return e-mail, and delete this message and any attachments from your system.

**From:** [Erick Herrera](#)  
**To:** [Joseph Hernandez](#)  
**Subject:** FW: [EXTERNAL] WPX Site Sampling Activity Update (11/7 - 11/11)  
**Date:** Tuesday, December 20, 2022 4:46:57 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---



**Erick Herrera**

Staff Geologist

281-777-4152

**Ensolum, LLC**

in f 

---

**From:** Nobui, Jennifer, EMNRD <[Jennifer.Nobui@emnrd.nm.gov](mailto:Jennifer.Nobui@emnrd.nm.gov)>  
**Sent:** Wednesday, November 2, 2022 3:58 PM  
**To:** Erick Herrera <[eherrera@ensolum.com](mailto:eherrera@ensolum.com)>  
**Cc:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] WPX Site Sampling Activity Update (11/7 - 11/11)

[ \*\*EXTERNAL EMAIL\*\* ]

Erick

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

Thanks,  
Jennifer Nobui

---

**From:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Sent:** Wednesday, November 2, 2022 11:54 AM  
**To:** Bratcher, Michael, EMNRD <[mike.bratcher@emnrd.nm.gov](mailto:mike.bratcher@emnrd.nm.gov)>; Nobui, Jennifer, EMNRD <[Jennifer.Nobui@emnrd.nm.gov](mailto:Jennifer.Nobui@emnrd.nm.gov)>  
**Subject:** FW: [EXTERNAL] WPX Site Sampling Activity Update (11/7 - 11/11)

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@state.nm.us](mailto:Jocelyn.Harimon@state.nm.us)  
<http://www.emnrd.nm.gov>



---

**From:** Erick Herrera <[eherrera@ensolum.com](mailto:eherrera@ensolum.com)>  
**Sent:** Wednesday, November 2, 2022 11:52 AM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>; 'CFO\_Spill, BLM\_NM' <[blm\\_nm\\_cfo\\_spill@blm.gov](mailto:blm_nm_cfo_spill@blm.gov)>  
**Cc:** Raley, Jim <[jim.raley@dyn.com](mailto:jim.raley@dyn.com)>; Devon-Team <[Devon-Team@ensolum.com](mailto:Devon-Team@ensolum.com)>  
**Subject:** [EXTERNAL] WPX Site Sampling Activity Update (11/7 - 11/11)

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Good afternoon,

WPX anticipates conducting confirmation soil sampling activities at the following sites between November 7<sup>th</sup> – November 11<sup>th</sup>, 2022:

Site Name: LVP #001  
API: 30-015-42234  
Incident Number: nAPP2135033453

Site Name: RDX 21-44  
API: 30-015-41193  
Incident Number: nAPP2115533694

Site Name: UCBH WW ROW  
API: 30-015-24451, 30-015-24034  
Incident Numbers: nAB1805133508, nAB1501655607, nAB1522341642, nAB1621453181, nAB1633639499

Site Name: Ross Draw Unit #034  
API: 30-015-41578  
Incident Numbers: nAPP2107554265, NAB1736055339, and NAB1528240224

Site Name: Yates Federal #001  
API: 30-015-24602  
Incident Number: NRM2011138650 and NAB1428734057

Site Name: Pecos Federal #001Y  
API: 30-015-24875

Incident Number: nAPP2208846424

Site Name: MWJ Federal 1

API: 30-015-24262

Incident Numbers: nAB1503440420, nAB1524652333, and nAB1719940724



**Erick Herrera**

Staff Geologist

281-777-4152

**Ensolum, LLC**

in f 

**PLEASE NOTE OUR NEW CORPORATE ADDRESS:**

Ensolum, LLC

8330 LBJ Freeway, Ste. B830

Dallas, TX 75243

**Erick Herrera**

---

**From:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>  
**Sent:** Thursday, March 16, 2023 10:21 AM  
**To:** Erick Herrera  
**Cc:** Bratcher, Michael, EMNRD; Nobui, Jennifer, EMNRD  
**Subject:** RE: [EXTERNAL] WPX Site Sampling Activity Update (3/20 - 3/24/2023)

[ \*\*EXTERNAL EMAIL\*\* ]

Erick,

Thank you for the notification. The notification requirement is two full business days which would require notification at the latest at the end of the workday on Wednesday for Monday morning sampling. Also please indicate specific times, dates and locations for each sampling event. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



---

**From:** Erick Herrera <eherrera@ensolum.com>  
**Sent:** Thursday, March 16, 2023 8:41 AM  
**To:** Enviro, OCD, EMNRD <OCD.Enviro@emnrd.nm.gov>; 'CFO\_Spill, BLM\_NM' <blm\_nm\_cfo\_spill@blm.gov>  
**Cc:** Raley, Jim <jim.ralej@dmn.com>; Devon Team <Devon-Team@ensolum.com>  
**Subject:** [EXTERNAL] WPX Site Sampling Activity Update (3/20 - 3/24/2023)

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Good morning,

WPX anticipates conducting confirmation soil sampling activities at the following sites between March 20 – March 24, 2023:

Site Name: Pecos Federal #001Y  
API: 30-015-24875  
Incident Number: nAPP2208846424

Site Name: RDX 9-1

API: 30-015-36211

Incident Number: nAB1728635377

Site Name: Federal G Gas Com #001

API: 30-015-20848

Incident Number: nAB1428733041

Thank you,



**Erick Herrera**

Staff Geologist

281-777-4152

Ensolum, LLC



**From:** [Ashley Giovengo](#)  
**To:** [Ronni Hayes](#)  
**Subject:** FW: [EXTERNAL] Pecos Federal #001Y - 48-hour Confirmation Sampling Notification - nAPP2208846424  
**Date:** Wednesday, April 19, 2023 2:14:38 PM  
**Attachments:** [image001.png](#)  
[image002.png](#)  
[image003.png](#)  
[image004.png](#)

---



**Ashley Giovengo**

Senior Engineer

575-988-0055

**Ensolum, LLC**

in f

---

**From:** Ashley Giovengo  
**Sent:** Thursday, April 13, 2023 3:20 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Raley, Jim <[jim.raley@dmv.com](mailto:jim.raley@dmv.com)>; Ashley Ager <[aager@ensolum.com](mailto:aager@ensolum.com)>; Anderson, Lacey <[lacee.anderson@dmv.com](mailto:lacey.anderson@dmv.com)>  
**Subject:** RE: [EXTERNAL] Pecos Federal #001Y - 48-hour Confirmation Sampling Notification - nAPP2208846424

Hello,

Please extend this sampling notification to 04/14/2023.

Thanks,



**Ashley Giovengo**

Senior Engineer

575-988-0055

**Ensolum, LLC**

in f

---

**From:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Sent:** Monday, April 10, 2023 10:01 AM  
**To:** Ashley Giovengo <[agiovengo@ensolum.com](mailto:agiovengo@ensolum.com)>; Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Raley, Jim <[jim.raley@dmv.com](mailto:jim.raley@dmv.com)>; Ashley Ager <[aager@ensolum.com](mailto:aager@ensolum.com)>; Anderson, Lacey <[lacee.anderson@dmv.com](mailto:lacey.anderson@dmv.com)>  
**Subject:** RE: [EXTERNAL] Pecos Federal #001Y - 48-hour Confirmation Sampling Notification - nAPP2208846424



[ \*\*EXTERNAL EMAIL\*\* ]

Ashley,

Thank you for the notification. Please include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

JH

**Jocelyn Harimon** • Environmental Specialist  
Environmental Bureau  
EMNRD - Oil Conservation Division  
1220 South St. Francis Drive | Santa Fe, NM 87505  
(505)469-2821 | [Jocelyn.Harimon@emnrd.nm.gov](mailto:Jocelyn.Harimon@emnrd.nm.gov)  
[http:// www.emnrd.nm.gov](http://www.emnrd.nm.gov)



---

**From:** Ashley Giovengo <[agiovengo@ensolum.com](mailto:agiovengo@ensolum.com)>  
**Sent:** Friday, April 7, 2023 4:27 PM  
**To:** Enviro, OCD, EMNRD <[OCD.Enviro@emnrd.nm.gov](mailto:OCD.Enviro@emnrd.nm.gov)>  
**Cc:** Raley, Jim <[jim.raley@dvn.com](mailto:jim.raley@dvn.com)>; Ashley Ager <[aager@ensolum.com](mailto:aager@ensolum.com)>; Anderson, Lacey <[lacee.anderson@dvn.com](mailto:lacey.anderson@dvn.com)>  
**Subject:** [EXTERNAL] Pecos Federal #001Y - 48-hour Confirmation Sampling Notification - nAPP2208846424

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

Hello,

We intend to take confirmation samples at the Pecos Federal #001Y – nAPP2208846424 starting on 04/11/2023 through 04/12/2023.

Please let us know if you plan to be onsite to oversee this sampling event.

Thanks,



**Ashley Giovengo**  
Senior Engineer  
575-988-0055  
Ensolum, LLC  
in f 

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 214379

CONDITIONS

Operator: WPX Energy Permian, LLC Devon Energy - Regulatory Oklahoma City, OK 73102	OGRID: 246289
	Action Number: 214379
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
scwells	Entire tank battery containment delineated by PH01 is approved for deferral. Site will need to be remediated and then reclaimed at time of a major facility deconstruction or at plugging and abandonment, whichever comes first.	1/23/2024